JANUARY 1946

FIREMEN

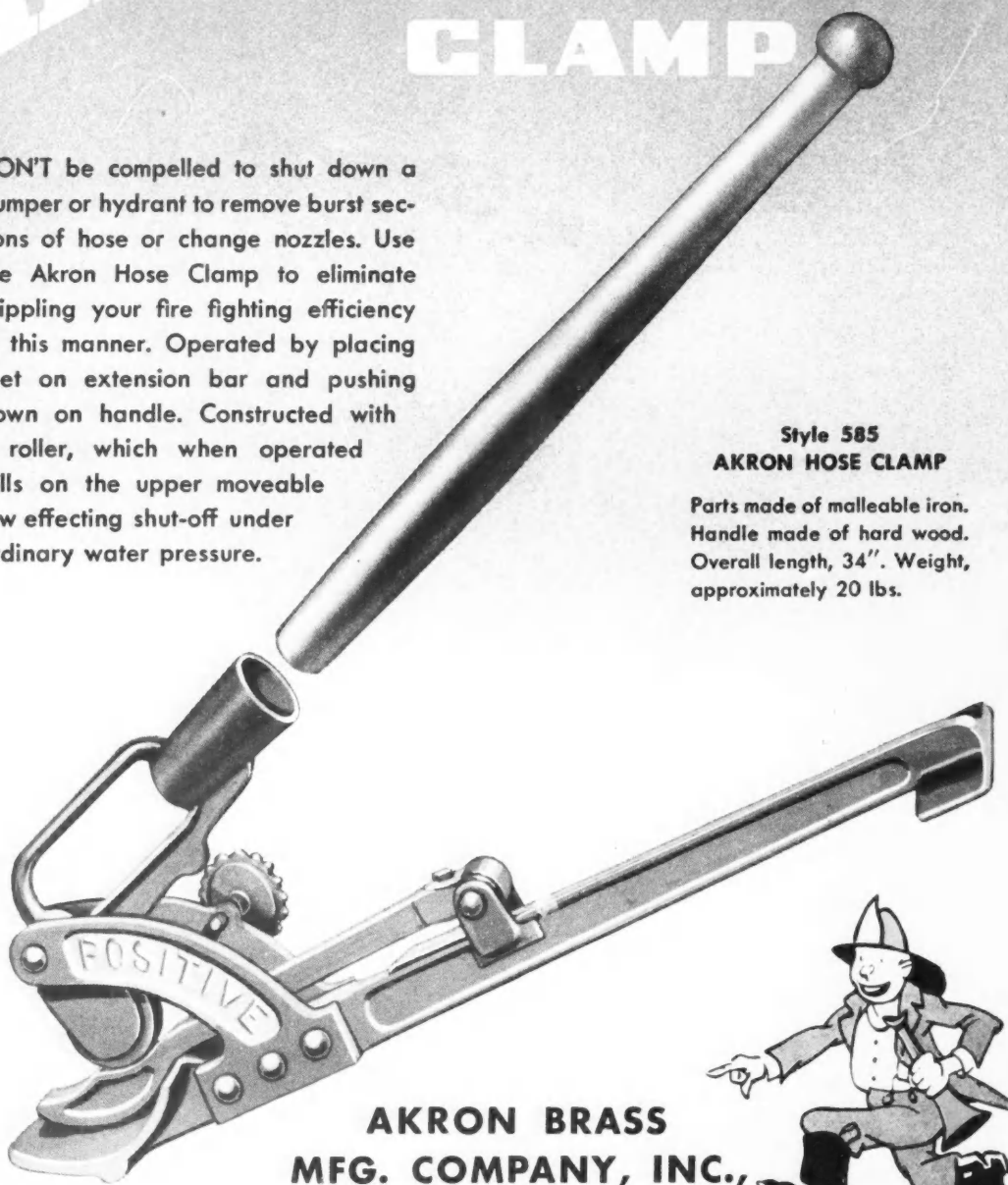
FIFTIETH ANNIVERSARY YEAR • NATIONAL FIRE PROTECTION ASSOCIATION

AKRON HOSE CLAMP

DON'T be compelled to shut down a pumper or hydrant to remove burst sections of hose or change nozzles. Use the Akron Hose Clamp to eliminate crippling your fire fighting efficiency in this manner. Operated by placing feet on extension bar and pushing down on handle. Constructed with a roller, which when operated rolls on the upper moveable jaw effecting shut-off under ordinary water pressure.

Style 585
AKRON HOSE CLAMP

Parts made of malleable iron. Handle made of hard wood. Overall length, 34". Weight, approximately 20 lbs.



AKRON BRASS MFG. COMPANY, INC., WOOSTER, OHIO

AKRON BRASS

FIRE FIGHTING EQUIPMENT

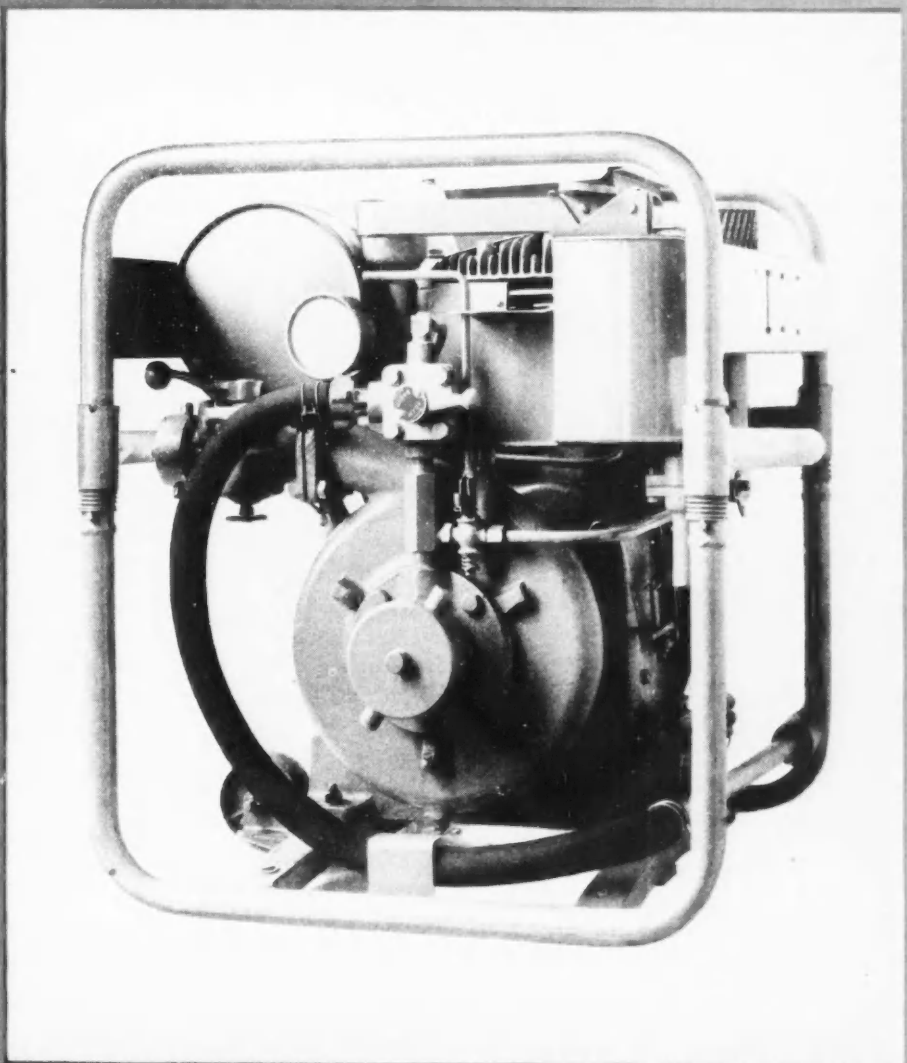
Announcing the NEW

05

HALE TYPE FZZ

A Complete Pumping Unit Ready For Use

COMPACT—POWERFUL—PORTABLE



For Complete Details Write—

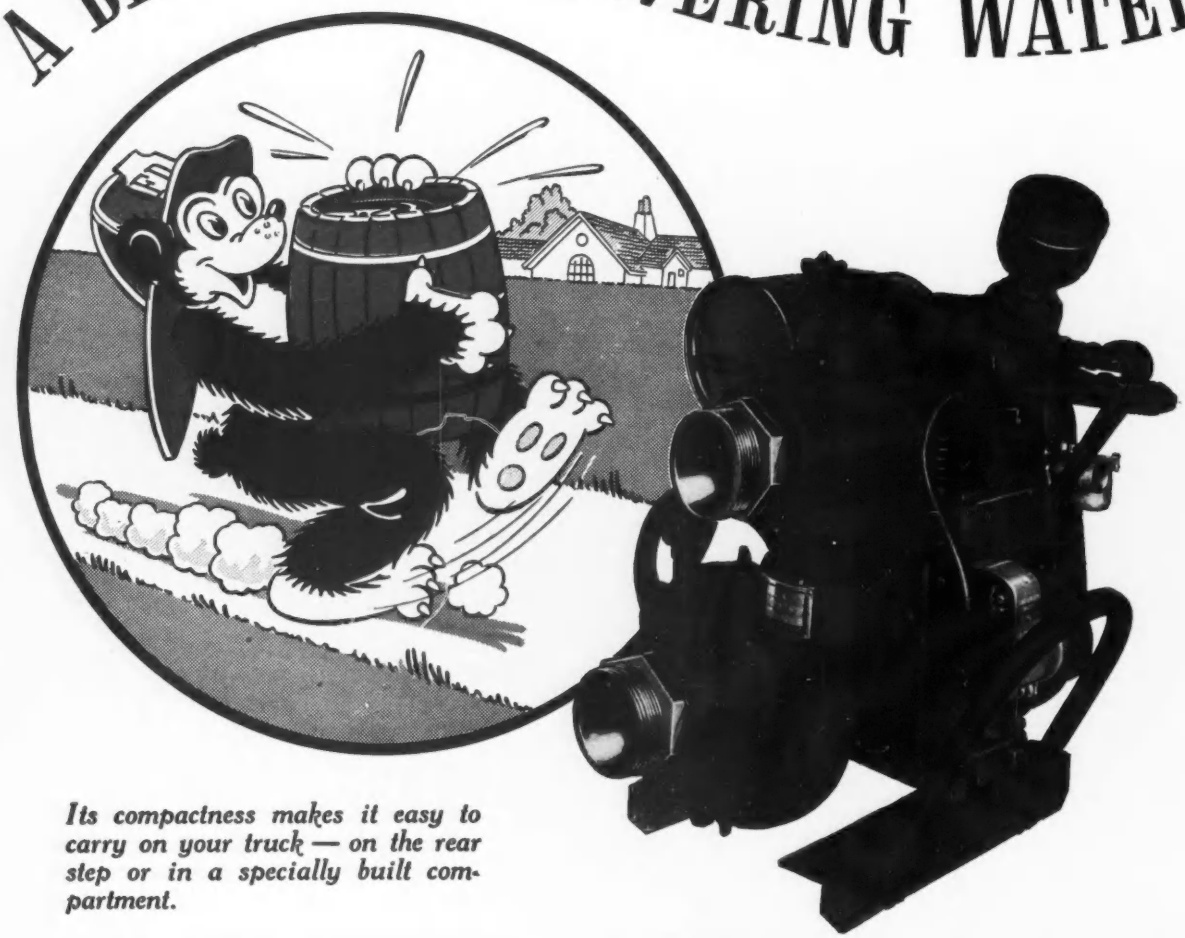
HALE FIRE PUMP COMPANY

CONSHOHOCKEN, PA.

INQUIRIES INVITED From Dealers Interested In Selling This Unit

AMERICAN-MARSH PUMPS

A BEAR FOR DELIVERING WATER



Its compactness makes it easy to carry on your truck — on the rear step or in a specially built compartment.

AUXILIARY BOOSTER PUMPS *for* FIRE DEPARTMENT SERVICE

Delivers 300 gallons per minute to booster tanks . . . pumps out basements, handling dirty water without damage to the pump — saving wear on expensive apparatus . . . cannot freeze as it is of the dry prime type.

AMERICAN-MARSH PUMPS, INC.

CENTRIFUGAL, TURBINE, STEAM, AND POWER PUMPS

BATTLE CREEK, MICHIGAN, U.S.A. . . PUMPS AND PUMPS ONLY SINCE 1873

Firemen

Volume 13 Number 1

WARREN Y. KIMBALL, EDITOR
ANNE BAILEY, ASSOCIATE EDITOR
CHARLES S. MORGAN, ADVERTISING MANAGER

Published monthly for the fire service members of the

NATIONAL FIRE PROTECTION ASSOCIATION

60 BATTERYMARCH ST., BOSTON 10, MASS.
A VOLUNTARY NON-PROFIT ORGANIZATION

PERCY BUGBEE, GENERAL MANAGER
ROBERT S. MOULTON, TECHNICAL SECRETARY
HORATIO BOND, CHIEF ENGINEER

Contents for January 1946

Sun Shipbuilding and Dry Dock Co. 6
40,000 Cords of Spruce Logs Lost as Flames Sweep 900-foot Long Pulpwood Pile at East Angus, Quebec 8
Two Volunteer Firemen Reprints Ready 9
Keep Warm and Safe 10
Tire Shop Makes Hot Fire 11
Coast Guard Fire Boats for Sale 11
Using the Hard Suction, by Warren Y. Kimball 12
Some Recent Fires 14
Silver Creek Has Enclosed Quad Ladder Truck 16
Keep Winter Road Accidents at a Minimum 16
When Civil Engineers Say "Water" They Mean Water . 18
From 8 to 80, Hudson, Mich., Citizens Enlist to Drive out Fire 22
Maryland Firemen Honor Glen Echo Fire Captain for Rescue Work 26
Insurance Co's Subscribe to Fund for Providence, R. I., Fire School 26
Cost of Fire Protection in Largest Cities 28
Electricity Has Its Own Safety Rules 28
Fire Company Membership 30
Cartoon 30
Manufacturers' Page 32

THE November, 1945, fire loss in the United States totaled $37,393,000, according to estimates by the National Board of Fire Underwriters. This figure is 8 per cent higher than the October loss total and 10 per cent higher than in November, 1944. These estimates are based on incurred losses under fire insurance policies reported by member companies of the National Board. Allowances are made for unreported and uninsured losses.

Fire losses for the twelve months ending last November, 1945, mounted to $453,945,000, as compared with $422,665,000 for the year preceding December, 1944.

Canadian fire losses during November, 1945, totaled $3,258,950, as against $2,326,500 for the same month in 1944. These figures were reported by the *Monetary Times*.

WITH this issue we are changing the name of this publication VOLUNTEER FIREMEN to FIREMEN. It seemed appropriate to us at this time when we are starting the fiftieth year of operation of the National Fire Protection Association, International, to make this change. We have found that this monthly publication has a very wide appeal to firemen of all types, both paid, part paid and volunteer, and that the editorial content of our magazine fills a widespread demand on the part of all types of fire department officers and men for up-to-date, practical information of value in the profession of fire fighting.

We can assure all of the many thousands of volunteer firemen readers of this magazine that their needs will continue to be served as fully and effectively as we hope they have been in the past. The information that we try to furnish to our readers about fires, fire fighting procedures, fire training methods, fire protection devices and fire prevention measures is, we believe, of value to all fire department personnel. We earnestly hope to continue to merit the confidence and respect of every volunteer fireman who is a reader of our publication. We want FIREMEN magazine to be in every way a practical aid to practical men and we ask your continued support, advice and criticism to this end.

MANY fire stations that have been in service for a long time prior to the advent of heavy motor traffic are poorly located with respect to the problem of turning the apparatus out of quarters without danger of a collision with passing vehicles. An ideal situation is to have the fire station set back far enough to let the apparatus drivers obtain a good view of the traffic in each direction before the apparatus actually enters the street.

Unfortunately this situation does not exist at many fire stations, and therefore, for the safety of the men and apparatus, other precautions must be taken. One of the best safeguards at night is to have the front of the fire station well lighted when the main "house lights" are thrown on at the time the apparatus is getting ready to roll. In most cases the apparatus floor inside is brilliantly lighted, and when the driver comes out into the darkness his vision is impaired for a few critical seconds.

Some departments have a flashing red or amber traffic light that can be thrown on in front of the station when the apparatus is ready to roll out of quarters. In other cases a man is sent out ahead of the apparatus with an electric light, red lantern, or lighted "billie" stick to direct traffic, but there is always danger that this man will be "picked off" by a careless motorist unless he is clearly visible with white markings on his coat at night.

One thing is certain, the fire department cannot depend upon the motorist to exercise the caution that should be expected of any good driver. In the winter many cars are operated with all windows closed so that the drivers do not hear the fire sirens. Also, strangely enough, hundreds of motorists will pass a fire station every day without even noting its presence and are startled when the apparatus shoots out to a fire.

Another point that has often been observed by fire apparatus operators is that the second or third piece of apparatus usually has more difficulty in traffic than the first piece en route. This is because most uninformed persons instinctively assume that only one fire truck is coming when they hear a siren. They cut back into the right of way just as the second piece comes along. The safest procedure is to assume that motorists will make such mistakes and provide for the safety of the fire apparatus and crew by adequate sirens and emergency lights, and by maximum caution particularly when getting under way. Be sure to throw on the apparatus lights *before* leaving quarters.

ONE of the biggest fire fighting jobs of 1945 was the fire of October 21, in a 55,000-cord pile of spruce logs at East Angus, Quebec, illustrated on the front cover of FIREMEN. A detailed account of this huge fire fighting operation appears on pages 8 and 9.

Fiftieth Annual Meeting of the N.F.P.A., Hotel Statler, Boston, June 3-8, 1946

SUN SHIPBUILDING AND DRY DOCK COMPANY

VOLUNTEER FIRE CO. No.....
To Prevent and Combat Fires—
To Preserve Life and Vital Material
so necessary for Victory and Peace
MEMBER

The headline of this report is a photograph of the membership card carried by all Sun Ship volunteer firemen. On the reverse side are listed all yard fire alarm signals, as illustrated below.

IN the world's largest privately owned shipyard — where more than 6,500 electric welders, gas welders and burners work and where more than 150 5-ton loads of crating, excelsior, paper, and scrap lumber have been removed each 24 hours since 1941 — the constant vigilance of a volunteer fire company has kept the fire record good. The volunteer fire fighters have been largely responsible for eliminating fire hazards and promptly extinguishing all fires. The Sun Shipbuilding and Dry Dock Company at Chester, Pa., an N.F.P.A. member, realizes fully the value of thorough fire protection.

The idea for a fire company within the shipyard started originally from a letter sent to one of the vice-presidents, which stated that in the yard there were several hundred volunteer fire fighters, many of whom would probably be willing to serve in the yard. The management decided to send letters to all fire companies in Delaware county requesting the names of their members who worked at Sun Ship. Replies came back from 41 companies, naming a total of about 450 men. Some 360 of these agreed to serve at the plant on a voluntary basis.

In November, 1943, these volunteer firemen held their first meeting. The following July the company allotted time for fire drills; and since that time the Sun Ship fire company has developed into a well-trained and efficient force. Fire alarms were installed at several points in the plant, and evacuation drills have been held in the main buildings.

These firemen are in addition to the Fire Marshals, who are a part of the Guard Force and maintain and place equipment throughout the yard, offices, and ships, and the chemists who inspect and test all repair work and new ships for gas, toxic fumes, oil, or other fire hazards and issue all orders for hot work.

These volunteer firemen, who in almost every case are members of a Delaware County volunteer fire company, are organized into three companies. One serves on each of the three shifts so that at no time is there any letdown in watchfulness.

Each company has a president, vice-president, secretary, and a board of trustees, chief, four assistant chiefs, sixteen captains and sixteen fire police. Since the yard has not been working on Sundays, a fire patrol of seven firemen and the chief or assistant chief has covered the yard on each shift. Several small fires have been discovered and extinguished by these groups.

Drills for the plant fire fighting organization are not play. They are serious schooling under trained men. Fire drills are planned for each section of the yard so that all men will become familiar with all buildings and equipment. Typical of a fire drill is the diagram with this article. Directions for each drill indicate exactly where the fire begins, how far the fire has swept when an alarm is turned in. Taking part in these drills is as important as any other work in the yard.

Men selected for volunteer fire fighting are expected to know their duties. Each fireman pledges his willingness to attend meetings and drills and is sworn in according to state law.

Each member of the fire police pledges his willingness to: "attend fire drills, attend fire meetings, be sworn in to act without fear or favor at fire scene, obey request of fire chief or assistant chief . . . perform his duty with courtesy and use diplomacy in carrying out his task, to assist in any way possible to avert panic should a fire occur in buildings where large groups are employed and be calm and helpful in evacuating personnel and

CENTRAL YARD FIRE SIGNALS

In case of fire call 308

Shipways—1 to 8	1 long	
Foreward of Shipways	1 long	2 short
Wet Basins—Pier 1-2-3	2 short	
Foreward of Wet Basin	2 short	1 long
General Alarm	5 short	
Storeroom—80 Department	5 short	1 long
Mold Loft Area	5 short	2 long
Main Office Area	5 short	3 long
Dry Docks	1 long	1 short

Repeat signals 3 times

All Out—1 short blast

Chester Fire Box 126, or Phone Chester 8111

SOUTH YARD FIRE SIGNALS

In case of fire call 261

Shipways—9 to 12	1 long	
Foreward of Shipways	1 long	2 short
Wet Basin	2 short	
Foreward of Wet Basin	2 short	1 long
General Alarm	5 short	
Dry Dock	1 long	1 short

Repeat signals 3 times

All Out—1 short blast

Chester Fire Box 126, or Phone Chester 8111

NORTH YARD FIRE SIGNALS

In case of fire call 408

Shipways—13 to 20	1 long	
Foreward of Shipways	1 long	2 short
Wet Basin—Pier 6-7-8	2 short	
Foreward of Wet Basin	2 short	1 long
General Alarm	5 short	
Storeroom No. 1—80 Department	5 short	1 long
Storeroom No. 2—80 Department	5 short	2 long
Number 4 Yard	4 short	

Repeat signals 3 times

All Out—1 short blast

Eddystone Fire Company—Phone Chester 9311

No. 4 YARD FIRE SIGNALS

In case of fire call 508

Shipways—21 to 28	1 long	
Foreward of Shipways	1 long	2 short
Wet Basins—Pier 11-12-13	2 short	
Foreward of Wet Basin	2 short	1 long
General Alarm	5 short	
Storeroom No. 2—80 Department	5 short	2 long
Hopeman Bros. Area	5 short	3 long

Repeat signals 3 times

No. 4 Yard Power House will blow location and notify North Yard Power House—Signal 4

All Out—1 short blast

Eddystone Fire Company—Phone Chester 9311

WETHERILL PLANT FIRE SIGNALS

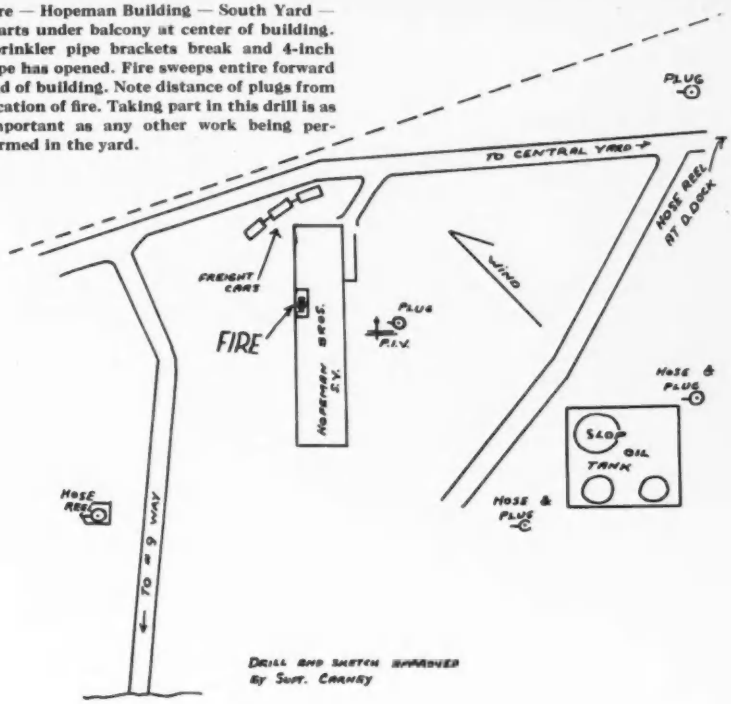
In case of fire call 271

No. 1 Building	1 blast
No. 2 Shop	2 blasts
No. 3 Shop	3 blasts
Mould Storage and Foundry	4 blasts
General Alarm	5 short blasts

Repeat signals 3 times

All Out—1 short blast

Chester Fire Box 153, or Phone Chester 8111



Fire — Hopeman Building — South Yard — Starts under balcony at center of building. Sprinkler pipe brackets break and 4-inch pipe has opened. Fire sweeps entire forward end of building. Note distance of plugs from location of fire. Taking part in this drill is as important as any other work being performed in the yard.

placing them in a safe location clear of the fire area."

Many of these plant firemen have attended state and local fire schools. Besides being trained to extinguish fires, they have been taught to note the time of alarms, who and what they saw on arriving at the fire, wind direction, color of smoke and flames, extent of fire. If suspicious, they are careful not to disturb the debris or any mechanical devices used to ignite the fire.

In order to keep the fire company alert, the organization uses a system of discharge to weed out those men who have lost interest in fighting fires. A special form is sent to persons who have failed to attend meetings or drills, informing them that if they do not appear before the next meeting with an acceptable excuse they will be dropped from the company.

Realizing that to be completely effective a fire company must maintain full coverage at all times, the Sun Ship Volunteer Fire Company is careful never to leave the plant unprotected. When an important water main was broken in Central Yard not long ago, the Sun Ship fireboat was moved from North Yard to the Central Yard wet basin. Members of the fire companies were notified that in the event of a blaze, lines of hose would be run from the fireboat instead of the fire plugs. Fortunately there was no alarm while the break was being repaired, but this procedure illustrates the high efficiency of the company.

Members of the organization are protected by insurance in addition to regular rates. This additional coverage pays $22 per week, $2,000 death benefit above regular rates.

Fire fighting apparatus which enables the volunteer group to cope with average blazes consists of: one fireboat and two motorized hose wagons; 20,000 feet of 2½-inch fire hose; 5,000 feet of 1½-inch fire hose; 16 40-gallon foam or soda-acid hand engines; 1,800 2½-gallon soda-acid extinguishers; 700 2½-gallon foam type extinguishers; 300 2½-gallon water pump cans; 1,500 1-quart carbon tetrachloride or pyrene extinguishers; 12 foam generators, 4 tons foam powder; 15,000 gallons of water per minute at 135-pound pump pressure; 96 3-way fire plugs.

Coordinator of this plant fire protection system is Charles Kimmel. His full-time job consists of general supervision over all fire equipment in the four yards.

Plant dayshift firemen making a hose connection to a hydrant in the foundry yard during a practice fire drill.

Fire drill directed by Supt. George Carney shows the Sun Ship fireboat "Typhoon" in operation and lines of hose from nearby fire plugs.

40,000 Cords of Sp
As Flames Sweep
Pulpwood Pile at E

**Chief L. S. Roger Bouchard,
Fire and Police Department,
East Angus, Quebec.
(Youngest Fire Chief in the Province)**

ON Sunday, October 21, 1945, at 11:40 A.M., the fire brigade of East Angus, Quebec, responded to an alarm from Box 5 at the Brompton Pulp and Paper Company. This box was located about 1,000 feet from the spot where fire had broken out in the motor house of a 75-foot high stacker which was used to pile 4-foot spruce logs on a pulpwood pile 900 feet long, 250 feet wide and varying in height from 70 to 90 feet. The first alarm, a local one, calling mill workers, was given by an employee by striking upon a circular saw blade while another worker sprinted toward the alarm box.

There was only one hydrant on a 6-inch main within 500 feet of the huge pumpwood pile. This was supplemented by three 2½-inch connections on a 4-inch pipe supplied by the same main. The public fire department and the plant employees each had a line attached to the hydrant within a very few minutes, and shortly afterward a third line was connected to a domestic pump located at a nearby river bank. About 12:30 P.M. a fourth line was laid from a more distant hydrant, bringing the total discharge being delivered on the fire up to about 500 g.p.m. Chief L. S. Roger Bouchard promptly ordered the plant's 1200 g.p.m. fire pump started.

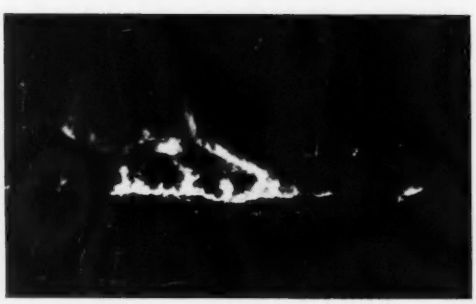
By the time the first fire fighting started, the rapidly spreading flames had extended up the stacker to the pulpwood pile which at the time contained between 50,000 and 55,000 cords.

Realizing that local facilities could not hope to cope with a blaze of such magnitude, Chief Bouchard obtained authorization from Manager P. H. Sewen to call all possible help. The first call went at 12:05 to Sherbrooke, fourteen miles distant, and Chief Percy Donahue, president of the Police and Fire Chiefs' Association for the Province of Quebec, was on the scene thirty minutes later with a LaFrance pump and a trailer pump. The big pump was set at the river and operating at 210 pounds delivered 554 g.p.m. through the 1¾-inch tip of a deluge set. The trailer pump delivered 411 g.p.m. through two lines. Subsequently a second trailer pump was obtained from Sherbrooke.

At 1:15 P.M. the two chiefs decided to call for more help and calls were sent to some sixteen fire departments and industrial fire brigades within a 60-mile radius. The following outside fire departments sent seven pumpers and six trailer pumps in addition to hose and men: Departments responding were Sherbrooke, Bishopton, Granby, Drummondville, Canada Paper Co. from Windsor Mills, Johnson's Mine from Thetford Mine, Richmond, Bromtonville, Brompton Pulp and Paper from Bromptonville, Marbleston, North Hatley, Rock Island, Johns-Manville Co., Montreal, Victoriaville, and Magog.

HELP continued to arrive until noon on the twenty-third, but by evening of the twenty-first a very substantial number of reserves had arrived. It has been estimated that 4,300,000 gallons of water were used during the first twenty-four hours. At approximately noon, Tuesday, water was being used at the rate of 5,857 g.p.m. or 8,434,080 gallons per day. This was applied by twenty-five streams, including six deluge sets of which three were supplied by the Montreal Fire Department. Fire fighting crews in addition to mill employees included 125 paid and volunteer firemen. The fire fighters were relieved for eight hours out of each twenty-four by a detail of seventy-five soldiers until the fire was brought under control on Wednesday.

DAY AND NIGHT the flames raged through the 55,000-cord pile of spruce logs.



f Spruce Logs Lost ep 900-Foot Long t East Angus, Quebec

During Sunday night and Monday morning the wind was very strong and fire fighters had difficulty in working against the intense heat and flying embers. It was decided that it would be impossible to check the spread of the fire toward the south end of the pile, and arrangements were made by the management to move as many of the logs away from that end as possible before they were reached by the flames. Approximately 2000 cords were saved from the south end.

To save the north end, the fire chiefs decided to put hose lines over the top of the pile from one side to another with streams about twenty feet apart. Nozzle tips were removed to let the water flow down through the log pile to the heart of the fire. This proved to be effective in conjunction with the powerful streams from deluge sets. Before the deluge sets went into operation it appeared that little of the wood might be saved as hand lines had proven ineffective.

After the center of the pile burned out, lines were advanced at that point so that they could play directly into the fire burrowing into the north end of the pile. Fortunately the sides of the huge pile were "ranked" with carefully piled logs which prevented the wind from driving the flames more rapidly through the center of the pile.

Through the cooperation of the numerous fire departments the fire was stopped short of the north end of the pile and some 10,000 cords were saved at that end. The north end was closest to the mill buildings which would have been seriously exposed had not the flames been stopped in time.

Of course, the obvious answer for the prevention of such huge pulpwood fires is to divide the pile into several smaller piles and to surround the pulpwood storage area with fixed monitor nozzles fed by large water mains backed up by powerful pumps. Standard hydrant service, deluge sets to supply additional heavy streams, and pumper suction stands at the adjacent river also would have helped to bring this large fire under control. The East Angus fire destroyed approximately 40,000 cords of wood with a loss estimated at $350,000.

This was the largest pulpwood fire since April 29, 1932, when a 221,000-cord pile, at Port Alfred, Quebec, was largely destroyed in a fight that lasted thirteen days and ended with a loss of $2,100,000.

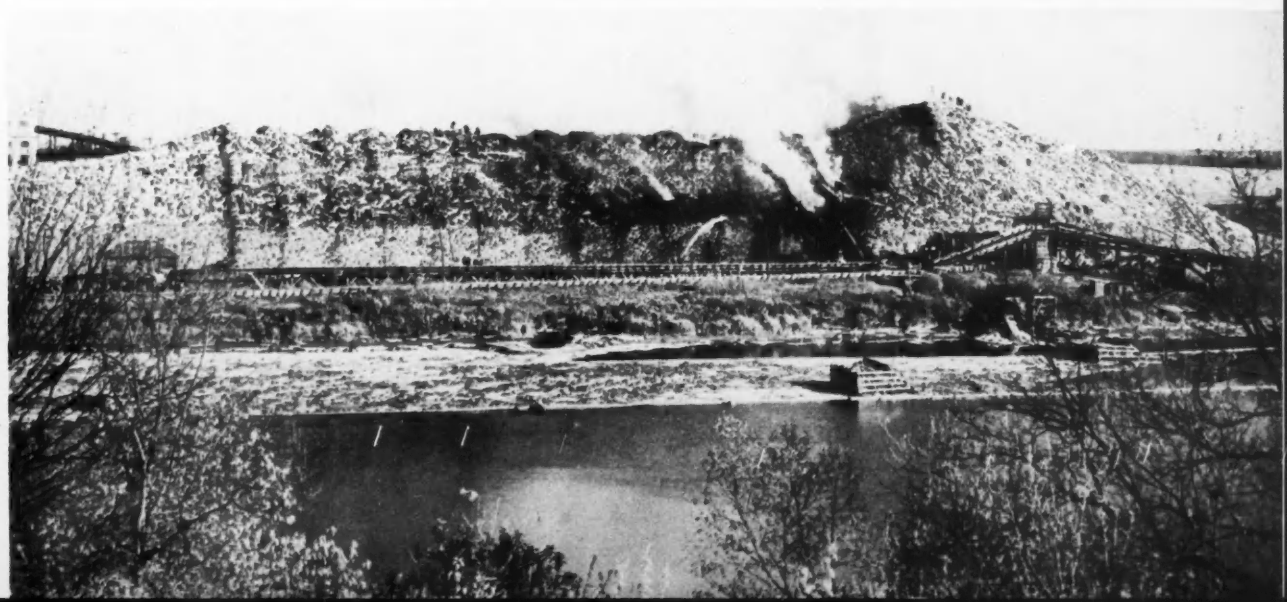
This huge stacker, used to convey logs to the top of the 90-foot pile, was wrecked by the intense heat from the burning of 40,000 cords of logs. Fire fighters used twenty-five streams in checking the fire.

Two "Volunteer Firemen" Reprints Ready

REPRINTS are available of "Rural Fire Control," Prof. Henry Giese's article in the August VF. Professor Giese is chairman of the N.F.P.A. Farm Fire Protection Committee.

"Fire Safety where Crowds Congregate," by Editor Warren Y. Kimball from the October VF, has also been reprinted.

Both are available from the N.F.P.A. Executive Office at 10c a copy. Write to 60 Batterymarch Street, Boston 10, Mass.



This fire covered nearly five acres. The pile was 900 feet long, 250 feet wide, and averaged 70 to 90 feet high. Fire fighters stopped the spread of the flames toward the north end.

Keep Warm and Safe

Reprinted from **Our Paper,** September 1945, published by the Grain Dealers' National Mutual Fire Insurance Company.

The first step in the modernization of the caveman's dwelling was the introduction of controlled heat. Considering the uncounted intervening centuries, it would seem that by this time the safe installation and operation of heating equipment would be well understood. But fires due to poorly installed or defective facilities and to unsafe operational practices continue. With another heating season confronting us, policy holders are again importuned to make certain their equipment is properly installed and to use it safely.

THE basic reason for a large proportion of heating fires would seem to be ignorance on the part of builders as to the proper construction and relative arrangements of chimneys, heating units, and other features of the building. Judging by appearances, it would often seem that heating facilities had been installed as an afterthought.

The first consideration in providing heat is to see that the heat-producing unit itself is safe: well constructed, of a size that will warm the area without "forcing" and consequent excess radiation, set at a reasonable distance from combustible materials; and provided with automatic regulation. The second consideration is that the smoke pipe and chimney shall provide adequate draft and carry the hot gases safely to the outside of the building. Thirdly, such practices as placing ashes in combustible containers and starting fires with kerosene or gasoline should not be indulged.

The Heating Unit

1. If it sets on legs on a combustible floor: an insulating metal-covered floorboard (or a sheet of metal with one-quarter inch asbestos underneath) should be provided. This should completely cover the floor under the unit and, if solid fuel is used, extend twenty-four inches beyond the front.

If the unit is without legs, the floor should be protected as described above and on top of the floorboard a base provided consisting of two courses of hollow tile so laid as to be self-ventilating.

2. Distances to exposed combustible material should be not less than three feet to sides and rear, four feet to front and two feet above. Any combustible surfaces within those distances should be protected by a screen of insulating board (not ordinary wallboard) set out on insulators at least one inch from the surface being protected. If desired, the insulating board may be protected against mechanical damage by overlaying it with a sheet of metal. Metal alone, being a conductor of heat, will not serve as an insulating screen.

NOTE: If a furnace is to be installed under a combustible floor, care should be taken that the excavation is made sufficiently deep that adequate overhead clearance will be obtained.

3. Automatic heat regulators are now obtainable for many types of hand-fired heating units. Thermostats, which control the air intake, and barometric dampers which serve to maintain uniform chimney draft are advisable in connection with any type of unit for greater economy in fuel consumption. In the case of automatic heat, such as oil or gas, these controls are necessary for safety. Likewise, safety dictates the use of barometric dampers in connection with stoves of the magazine type.

Chimneys

For proper functioning, chimneys should be of sufficient height and area to provide adequate draft. For safety, only well-constructed masonry or approved prefabricated types should be used. Tile or concrete chimneys may be used only if completely detached from the building.

Masonry (brick) chimneys may safely be physically attached to frame buildings but should be constructed on substantial foundations, not on wooden supports, and should not support any part of the building. Chimney walls should be of two-brick thickness and a fire-clay lining ing provided for the full height.

Smoke pipe openings should be located so that the pipe will not come within eighteen inches of overhead combustible material or plastered ceilings. Where solid fuel is to be used, a cleanout door, located below the level of smoke pipe opening, is necessary.

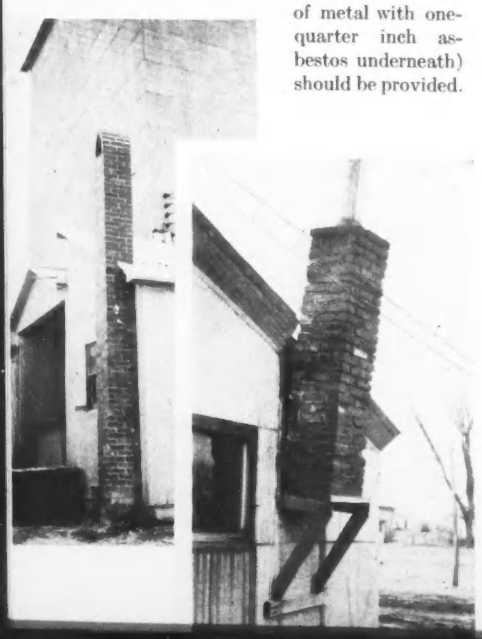
Good construction is especially important at the point where smoke pipes enter the flue opening. Unless the chimney is so constructed that its face is exposed at the smoke pipe opening, there is a likelihood that inadequate clearance between pipe and combustible materials — wall members, sheathing or inside finish — will exist at that point. Safest construction is where smoke pipe directly enters chimney, or corbeled extension thereof. Where that is not possible, all combustible portions of wall should be entirely cut away from the pipe connection for a distance of twelve inches, and the wall space filled with rock wool or other insulating material. The insulating material should be held in place with incombustible surfacing such as sheet metal, plaster on metal lath or gypsum board.

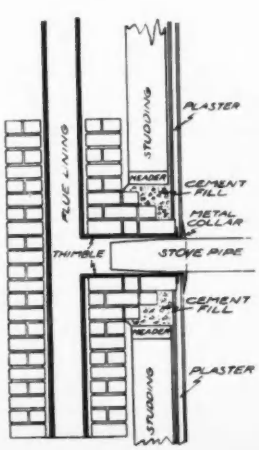
Location of the chimney should be such in relation to the heating unit that the smoke pipe may be of minimum length without passing through partitions, closets or attics.

Prefabricated types of chimneys must be Underwriters approved and installed in strict conformity with manufacturer's directions.

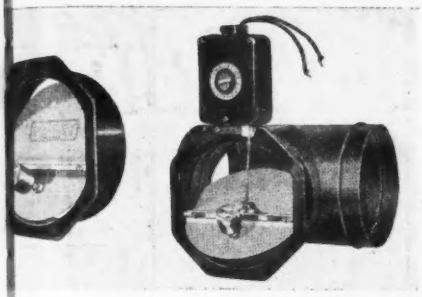
Smoke Pipes

Where a clearance of eighteen inches vertically or horizontally from pipe to





Right. **The safety of an otherwise good chimney often is nullified by poor construction at the smoke pipe opening. No combustible material — studding, sheathing, lath or interior finish — should be closer than twelve inches to either smoke pipe or thimble. If the chimney is outside the room, a corbeled extension represents probably the safest construction, although a tile or section of well casing properly supported and insulated may be used.**



Barometric draft controls are balanced, counter weighted metal air valves, mounted usually on the smoke pipe. They insure a steady, unchanging rate of draft through the heating unit. That shown at the left is designed for use with units having manually operated draft controls, that at the right for units having automatic control.

exposed combustible material is not possible, such material should be protected with an incombustible screen set out at least one inch from the surface to be protected.

Where pipes pass through combustible partitions, ventilated sleeves providing at least six inches air space are required.

Smoke pipe sections should be rigidly attached to each other with sheet metal screws or otherwise and the whole securely wired in position. The pipe should extend at least three inches into the flue connection but not so far as to obstruct the vertical flue opening of the chimney.

Good Practices

Each fall it is well to give the heating system a careful checking over, particularly the chimney and smoke pipe connections. The chimney is most likely to deteriorate at the roof line. If it needs repointing or replacement, start well below the roof line just to play safe.

Examine around and inside the smoke pipe connection for cracks or other evidence of weakness or heating of combustible material. A large proportion of chimney fires start at this point.

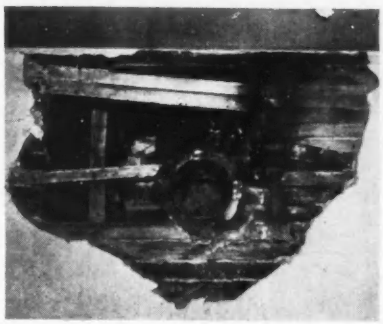
As a final check, build a smudge fire, then cover the top of the chimney and watch for smoke as evidence of undiscovered cracks in the chimney and smoke pipe connection.

No matter how careful you are in checking the system — and that it may, in fact, be in perfect condition — a "heating" fire next winter is entirely possible if unwise practices are indulged.

Probably the most unwise practice peculiar to grain elevator offices is that of the person responsible for the building of the morning fire doing so, then going home for breakfast while leaving all the drafts wide open. That may insure a warm office with a minimum of discomfort, but it also produces a number of office fires.

The employment of kerosene or gasoline in the starting of fires frequently produces minor conflagrations, not to mention casualties, while the use of combustible containers for ashes is another way of inviting trouble.

Several features of a poorly constructed smoke pipe connection show up very well in the lower picture, due to the concealing wall surface having been nicely burned away.



Coast Guard Fireboats For Sale

COAST GUARD fireboats being decommissioned and declared surplus by the Coast Guard may now be purchased by municipalities through the facilities of the War Shipping Administration. This announcement was made by Coast Guard Headquarters in Washington, D. C.

As soon as headquarters is advised by a District Coast Guard Officer that certain fireboats are surplus to the needs of the District, and Headquarters concurs with this position, the Coast Guard will advise the Maritime Commission or War Shipping Administration that such boats are available for disposition as surplus property. If the boat is an acquired or converted vessel, it is handled by the War Shipping Administration. Coast Guard owned boats are handled by the Maritime Commission. The facilities of the War Shipping Administration will be used for the final sale of such boats.

The exact number of converted vessels for acquisition by municipalities to serve as water-front fire protection cannot be accurately foretold. There are a number of Coast Guard built fireboats available as surplus property. It is suggested that municipal authorities interested in obtaining fireboats of either type, contact the Director, Small Vessel Procurement and Disposal Division, War Shipping Administration, Washington 25, D. C.

TIRE SHOP MAKES A HOT FIRE

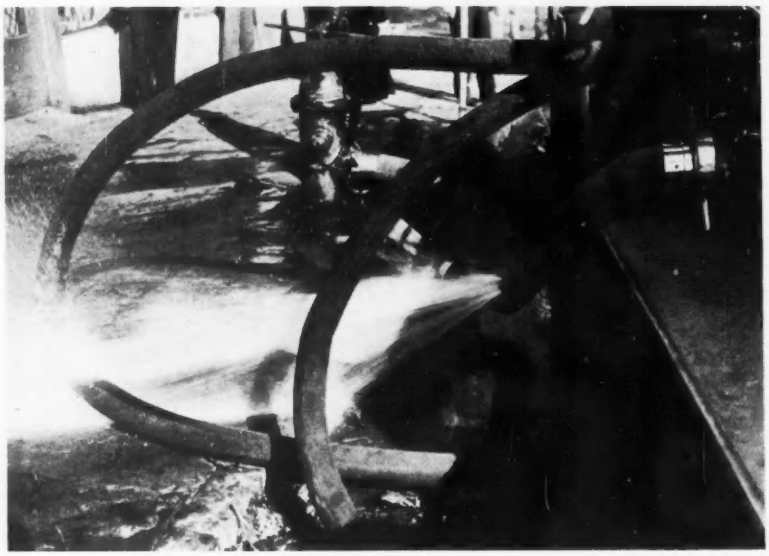
TWO tire shops suffered $50,000 loss in fire damages in a four-alarm fire in Pittsburgh, Pa., on October 18.

Employees working in the Retread Tire Service shop apparently did not realize that their building was on fire. The alarm was given by a passer-by, curiously enough a member of the fire alarm office. He saw smoke and asked if an alarm had been given, which had not.

Employees and firemen disagreed on the point of origin of the flames and the fire was marked "unknown." However, reports state that tire cement had exploded.

USING THE HARD SUCTION

By Warren Y. Kimball



Here is a soft suction that let go at an important fire recently. The pumper was poorly spotted in relation to the hydrant, resulting in severe bends in the suction hose. Much of the soft suction hose obtained during wartime is reportedly not up to normal standards of performance.

THERE is probably no one operation that causes greater loss of time in getting streams into operation at working fires than a poorly handled job of connecting the hand suction to the pumper. Strangely, many drill manuals have little to say about the pumper hook-up, but any experienced hose crew that has had to wait for water in hot smoke-filled locations will appreciate that a saving of even fifteen to thirty seconds in this job will be a very worth while result of more frequent practice hook ups.

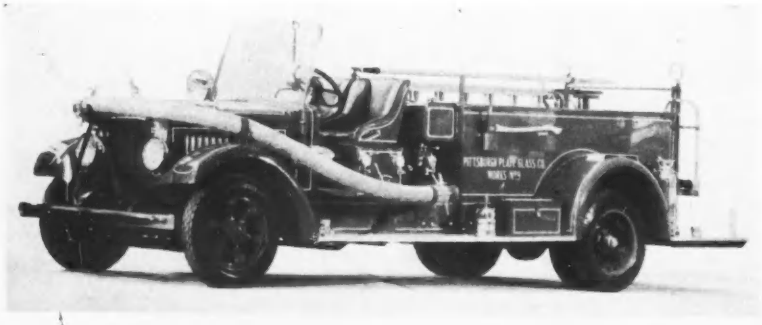
In the old days before manpower was a problem in the fire department and a captain and lieutenant responded with each company, the lieutenant almost invariably stayed with the engine until it was properly connected and ready for operation while the captain led the pipemen into the building to locate the fire. Even today many of the most successful fire company officers consider the proper "setting" of their pumper one of the jobs of first importance when getting to work at a fire. There is nothing so aggravating as waiting and waiting for water as the flames continue to spread because the pumper team is having trouble in making a good connection.

Methods of connecting pumpers at fires are almost as varied as are the number of fire departments and separate companies in fire departments. The success of different methods adopted, to a considerable measure, will be determined by local conditions and fire fighting practices. Nevertheless, the pumper hook-up job is one that is really worth much thought and practice drill. Because many fire companies do not feel sure of making a "smooth" hook-up with a hard suction, they have adopted the expedient of using a soft cotton rubber lined suction hose when taking water from hydrants. This operation is a few seconds faster because the soft suction is easier to handle, but it often results in unsatisfactory fire streams at large fires where several pumpers are drawing from a limited water main supply. If the amount of water needed by the pumpers exceeds the available flow at a given hydrant, the soft suction will collapse. Of course, pump operators are instructed to avoid pulling down the available hydrant pressure to below five pounds at the pump intake, but frequently fire ground conditions are not entirely under the operators' control. Officers order lines slapped on the pump and "holler" for water and pressure. It is up to the operator to deliver the maximum available.

Some of the larger fire departments permit the use of soft suctions by companies responding to the first alarm for any fire but require all companies answering multiple alarms to use a hard suction. This is intended to let the first arriving companies get to work quickly with the soft suction on the assumption that there will be no serious competition for water until additional pumpers arrive. However, at serious fires it may happen that while the first arriving companies use the hydrants closest to the fire, later arrivals may make connections between the first pumpers and the source of the water, seriously interfering with streams already in operation. It is advisable that even the first companies should use hard suctions when they know they are up against a tough fire.

Another handicap with the use of soft suction is that many fire departments fail to provide this suction in sizes large enough to meet the demand for additional streams at large fires. If a large size pumper is operating at near capacity it will be best to use at least a 4½-inch suction hose. Some departments use two smaller sized soft suctions connected to a siamesed intake at the pumper. These are used where it is desired to connect to two 2½-inch outlets on a hydrant lacking a "steamer" connection, as the big hydrant outlet has long been called.

One of the best arrangements for the use of hard pumper suction quickly is that employed by many of the leading fire departments located in the Mississippi and Ohio River valleys. These departments carry about twenty feet of



Many fire departments carry a long hard suction connected to a pumper outlet with a swivel connection. The suction is looped around the front of the truck. Only the hydrant connection need be made to obtain water at the pump.

hard suction connected to a pump intake on the truck by a swivel connection. The suction hose is looped around the front of the pumper. When the pump is to be used it is only necessary to bring the free end to the hydrant and make the single connection, thus saving considerable time and effort.

A number of fire departments having a rear suction connection carry a 4½-inch soft suction connected to the pump and rolled up out of the way. This reserves the side pumper intakes for use with hard suction. When using the rear soft suction with such an arrangement it is possible to make connections and get water through the pump in as little time as fifteen seconds. However, a well trained pumper crew should be able to get the hard suction into service in not much over twice this time.

One of the reasons there is frequently considerable delay in getting the pumper connected is that the pump operator is all too often sent to the hydrant without sufficient help to do the job quickly. Anyone who has ever wrestled with a large hard suction knows that it is not a one-man job. At least two men are needed and a better job can be done in this operation by two trained men in addition to the driver. This latter will permit the operator to remain on the driver's seat until the apparatus is correctly "set" at the hydrant so that no time will be lost if the vehicle is not correctly spotted on the first attempt and must be moved slightly. As the pumper cannot throw water on the fire until the connection is made, it is not a waste of time or manpower to send a sufficient crew to the hydrant.

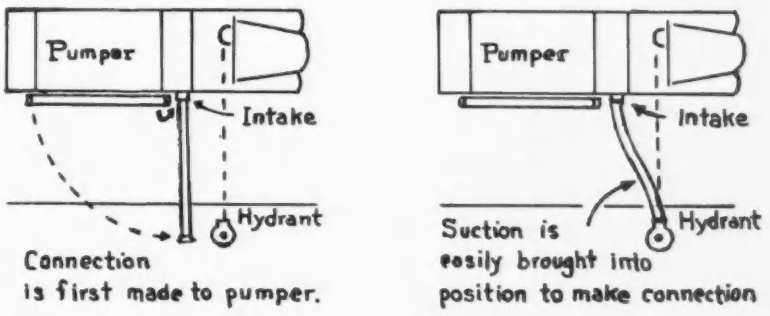
Of course, there are a lot of little details where a lot of time can be lost when connecting the pumper unless attended to in advance. The hydrant wrench should be carried in a convenient position. Likewise where hydrant gates are to be used they should be readily available. Some fire departments fail to keep a female coupling at each end of one length of suction hose, and lose time each time the pumper is connected by fishing in the tool box for the female connection to place on the hydrant outlet.

Probably the greatest reason for loss of time is failure to know the arrangement of the company's own pumper well enough to spot the pumper's suction intake in a correct relationship with the hydrant outlet. If the driver knows that the intake connection on the pump is, say three or four feet behind or ahead of the steering wheel as the case may be, he will have little difficulty in stopping the pumper in correct proximity with the hydrant outlet. There will be few drivers, however, who can every time spot a pumper exactly one length of suction hose distant from the hydrant outlet. The correct spotting of the pumper is of vital importance, as there is very little bend possible in hard suction hose. It is probably best not to try to place the pumper intake exactly abreast of the hydrant outlet because if the pumper is too close to the curb it will be almost impossible to make the connection. Also, if it is too far out from the curb some backing and filling will be necessary to change the position of the machine. One of the faults in placing pumpers at the hydrant is to get the pumper too close to the curb so that there is not room to use the hard suction without excessive bending of the hose.

Occasionally it is necessary to take suc-

Continued on page 20

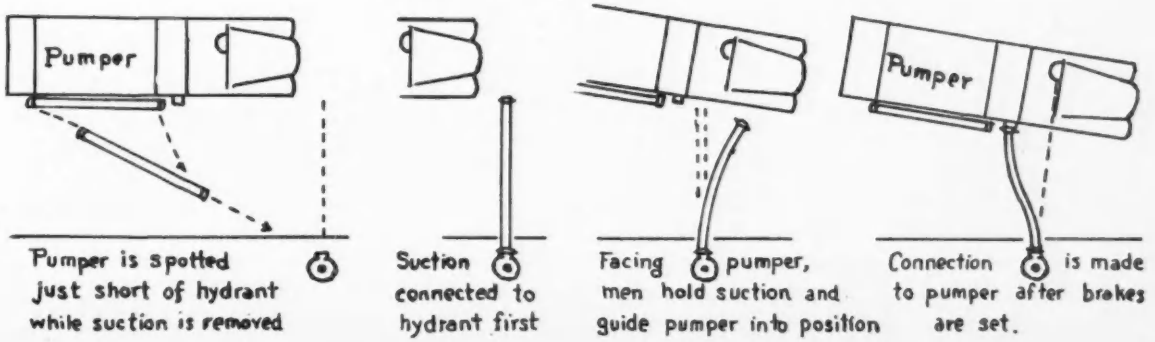
Method No. 1



Method No. 1 of connecting a hard suction to a pumper is perhaps one of the simplest in use. The operator spots the pumper with the steering wheel about abreast of the large hydrant outlet. One man takes each end of the suction hose. The suction hose connection nearest to the pumper intake is placed at the intake and the other end is pivoted toward the hydrant outlet. Two men first make connection to the pumper and then there is little difficulty in making a slight bend to connect to the hydrant if the pump is far enough out from the curb. Practice will make perfect.

Method No. 2 is used where there is more difficulty in spotting the pumper. The pumper is stopped well clear of the hydrant. The suction hose is carried to the hydrant outlet and connected. The men with the suction hose then guide the pumper into correct position, taking care to keep themselves and the suction hose clear of the machine in case the clutch is jerky and the pumper is brought a little too close. When the driver has the pump in position, he will set the brakes and the suction is then connected to the pump. Water may be turned into the pump from the hydrant at the discretion of the operator, but outlet gates to attached hose lines will not be opened until the officer in charge of the line calls for water and indicates the desired pressure.

Method No. 2


Pumper
Pumper is spotted just short of hydrant while suction is removed
Suction connected to hydrant first
Facing pumper, men hold suction and guide pumper into position
Pumper
Connection is made to pumper after brakes are set.

Hempstead, L. I., N. Y. Airplane crash fires continue to be a problem confronting the fire departments. On November 17, this Army fighter plane from Mitchell Field crashed between two houses, while apparently trying to make an emergency landing in a vacant lot.

Some Recent Fires

King of Prussia, Pa. On October 9, at 10:15 P.M., a neighbor telephoned an alarm to a nearby volunteer fire department that a house was on fire. On arrival, the firemen found a two and one-half-story office and pattern storage building of a large machine tool plant seriously involved in flames.

Help was called from six volunteer departments, but fire fighters were handicapped by the fact that the nearest hydrant was nearly three-quarters of a mile away. Not until a fire occurred a few weeks previous had the management known that there was no hydrant in the vicinity. The plant had moved from Philadelphia in 1941.

Fire companies set pumps in relay and provided two streams to attack the fire in the office building. A railroad locomotive was sent for and arrived at a siding to the rear of the plant approximately one and one-half hours later. It supplied another fire department pumper which proved valuable in checking the extension of fire to the 250-foot long, main factory. The office building had been destroyed by that time.

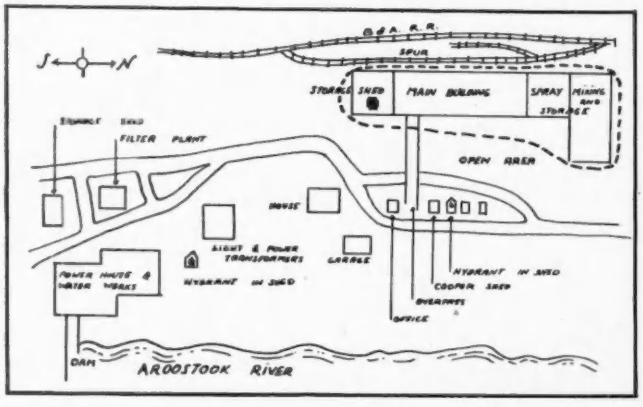
Losses to the plant were estimated at over $100,000.

Caribou, Maine. A night employee at the waterworks telephoned an alarm at 10 P.M. on October 28. Fire had started in a barrel stave storage shed attached to a farm fertilizer plant.

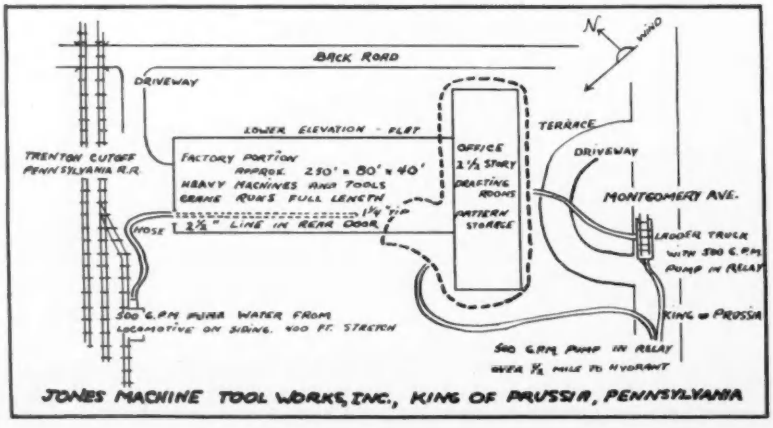
The seventy-year-old watchman had seen, but paid no attention to, two men near the shed. On discovery of fire, he ran to the office to give an alarm but collapsed on the way.

There were no fire walls for more than 700 feet of building and the main plant was involved very quickly. Volunteer firemen used four streams to protect the exposed buildings. An attempt to use a yard hydrant was abandoned in the face of wind-driven flames.

Company officials estimated their losses at $350,000.



Moline, Ill. The fact that an ordinary dwelling fire can give firemen a smoky battle was again proved by this fire of November 14, pictured above. There was no report on the origin of the fire that badly damaged the house.



JONES MACHINE TOOL WORKS, INC., KING OF PRUSSIA, PENNSYLVANIA

IMPORTANT! NEWS — for every FIRE DEPARTMENT!

M·S·A Announces . . .

THE REVOLUTIONARY

M·S·A

Chemox

SELF-GENERATING

OXYGEN BREATHING APPARATUS

Generates its own oxygen as you breathe—in the amounts you need—giving you *one hour's* protection in unbreathable air, using a replaceable chemical canister! Weighs only 13½ lbs. complete. No cylinders, high-pressure valves or fittings. Fog-free lenses. Absolutely simple to use. Proved by Navy battle service all through the war! Write now for Bulletin BM-8, and an actual demonstration.

ONE REPLACEABLE CANISTER DOES THE WHOLE JOB!

AND

THE M·S·A DEMAND-TYPE OXYGEN MASK

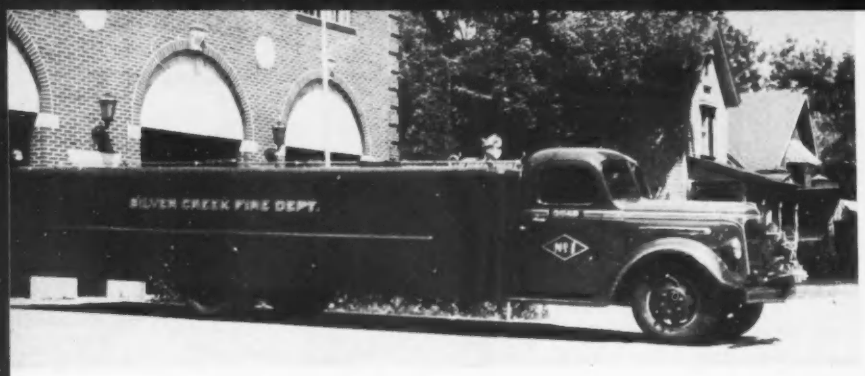
Built to high standards of construction and dependability, this extremely simple M.S.A. Oxygen Mask operates on the demand principle—supplying oxygen direct from refillable cylinder, for one-half to one-hour period. No special training required—facepiece has quick-disconnect fitting to conserve oxygen during standby periods—no lens fogging. Write for Bulletin BM-7. Demonstration gladly arranged.

JUST PUT IT ON—OPEN A VALVE—AND BREATHE!

MINE SAFETY APPLIANCES COMPANY

BRADDOCK, THOMAS AND MEADE STREETS PITTSBURGH 8, PA.

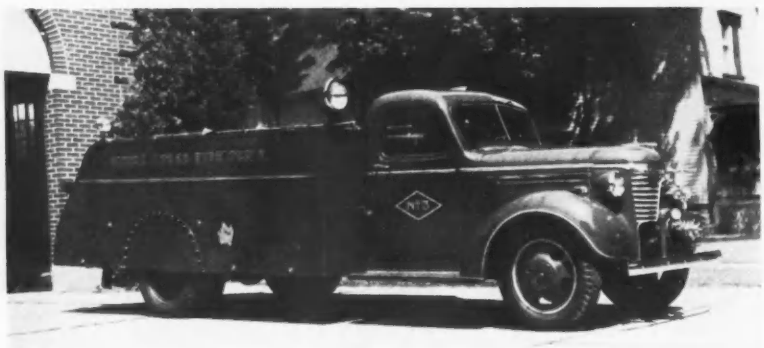
District Representatives in Principal Cities



Silver Creek, N. Y., Has Unique Enclosed Quad Truck

THE Silver Creek Fire Department has a ladder truck of which it can well be proud. Pictured above is their truck with enclosed ladder banks (shown in rear view, upper right). In the compartments is a total of 230 feet of ladder, ranging in sizes of from ten to sixty feet. For reserve pumping capacity, it carries a front-mount pump. There is a 500 g.p.m. booster tank and hose reel. The truck also carries 500 feet of 2½-inch hose and 100 feet of 1½-inch hose. The 2½-inch hose is packed in a tray under the aisle where firemen stand. In providing a spacious center aisle, the squad-type truck body eliminates the danger of firemen falling off the running board.

The streamlined, triple combination, 750 g.p.m. pumper that Chief Wilford O. Velzy's men operate is pictured below. It also is designed to keep the men off the running boards by providing aisle space. Suction hose is enclosed in a special compartment on the left, as are the extension and roof ladders, at the right. It carries 1,000 feet of 2½-inch hose.



★ ★ ★

Prevent — or Repent

Keep Winter Road Accidents at a Minimum

A VERY real danger faced by call and volunteer firemen each winter is the possibility of accidents because of hazardous road conditions while responding to alarms in their own cars. As pointed out by the International Association of Chiefs of Police, traffic deaths per 100,000 miles of travel were 24 to 53 per cent higher than the corresponding summer rate in thirty-six snowbelt states.

The ordinary motorist is presumably aware of the increase of driving hazards with winter road conditions. It can be understood that the volunteer fireman, hurrying to a mid-winter alarm, must be extremely cautious to avoid accidents.

The International Association of Chiefs of Police gives the following winter driving tips.

1. Maintain Visibility. You must see a hazard to avoid it. Check windshield defroster-wiper, headlights and keep the windshield clean.

2. Reduce Speeds According to Snow and Ice Conditions. Remember, it takes three to eleven times as far to stop on snow or ice as on dry pavement, unless you have on car chains.

3. Keep a Safe Distance from the Vehicle Ahead. When roads are slippery, allow three to six car lengths for every ten m.p.h. Snow and ice increase braking distances three to eleven times. Slipperiness on ice varies. Glare ice at thawing temperatures is twice as slippery as dry ice near zero.

4. Put on Anti-Skid Chains when Snow or Ice Prevail. Tire chains reduce braking distances 40 to 50 per cent and provide needed "go" traction on snow or ice.

5. Practice "Defensive Driving." This means driving so that you are prepared for any emergency under prevailing conditions. Anticipate mistakes of pedestrians and other drivers.

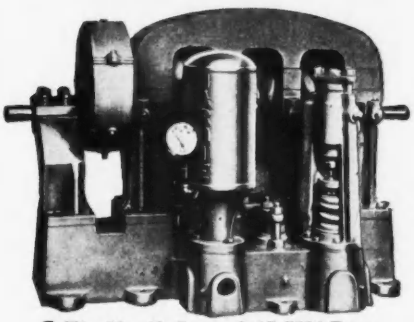
6. Signal Intentions Clearly. When turning or stopping, remember others may be unable to do likewise as quickly as normal on hard-packed snow or ice, if they have neglected chains.

Probably most experienced fire service drivers could add a few additional items. Many have found it desirable to increase the amount of weight carried in the rear of the car to give better traction under snow and ice conditions. Good tire treads are also important, another reason for recapping before tires have worn thin. Special attention must be given to proper inflation of inner tubes, as winter conditions with frequent changes of temperature may cause serious deflation or over inflation, particularly with synthetic tubes.

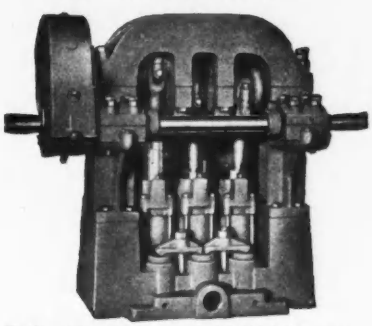
An additional point that all volunteer and call firemen who respond in their own cars should consider is to keep well out of the way of the fire apparatus. Parked cars should not interfere with the approach to the hydrants.

Continued on page 28

● *The Hardie Fog Gun delivers a true fog, or a hard driving stream, or a combination of both as desired. One hand trigger control.*



● *The Hardie Imperial LCXA Pump delivers 60 gallons per minute at 800 P.S.I. at 130 R.P.M.*



● *The Hardie Imperial XCXX Pump delivers 35 gallons per minute at 800 P.S.I. at 118 R.P.M.*

800 P.S.I. *Plus...*

When you specify a Hardie High Pressure Big Capacity pump for your Fog Fire Fighter you get 800 P.S.I. plus a number of other things that assure complete and lasting satisfaction.

Hardie pumps deliver 800 P.S.I. at slow speed, easily and without excessive strain on any part. This means dependability in long sustained operation, slow wear, long life and freedom from service troubles.

Hardie pumps and Fog Guns are supplied by leading manufacturers of fire control equipment. Specify a Hardie pump when you buy your new Fog Fire Fighter or convert an old unit into one. Write for catalog and complete data.

THE HARDIE MFG. COMPANY

Hudson, Mich. **Los Angeles, Calif.** **Portland, Oregon**

Canadian Distributor C. W. LEWIS, Grimsby, Ontario

★H★A★R★D★I★E

High Pressure **PUMPS AND FOG GUNS for Fog Fire Fighters**

When Civil Engineers Say 'Water' They Mean WATER!

Each Jet at TVA's Fontana Dam Spillway Equals Output of 4,448 1000 G.P.M. Pumpers

Courtesy Engineering News-Record

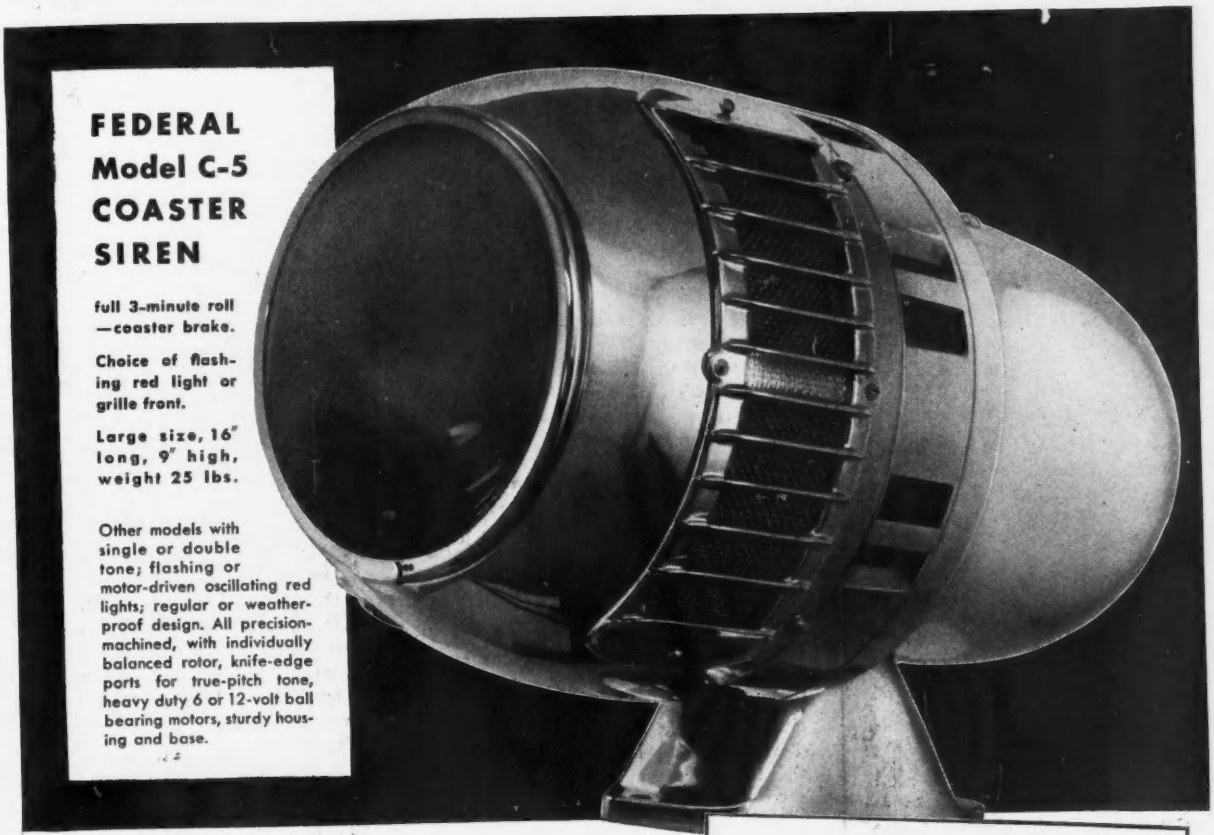
THE job of getting tremendous water energy safely down from behind a 400-foot high dam into the natural river bed downstream below the new Fontana Dam of the Tennessee Valley Authority was a water handling job such as fire fighters have never encountered at the greatest conflagrations.

The spillways, two of which were photographed above while operating at 10,000 cubic feet per second each (4,488,600 g.p.m.), are supplied by 34-foot diameter water tunnels, either of which can take care of a flow of 91,000 cubic feet per second. Thus the maximum discharge from each jet could be 40,846,260 g.p.m., as compared with the world's largest fire nozzle stream — the 10,000 g.p.m. forward monitor on New York City's largest fire boat, the *Firefighter*.

These huge jets, guided by great, concrete, bucket shaped nozzles, travel at velocities of more than 100 miles per hour to throw water 150 feet into the air, letting it fall, figuratively, as "gently as a kitten," into the river bed.

Continued on page 28

Get the PROTECTION you need



FEDERAL Model C-5 COASTER SIREN

full 3-minute roll —coaster brake.

Choice of flashing red light or grille front.

Large size, 16" long, 9" high, weight 25 lbs.

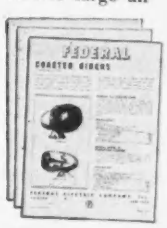
Other models with single or double tone; flashing or motor-driven oscillating red lights; regular or weatherproof design. All precision-machined, with individually balanced rotor, knife-edge ports for true-pitch tone, heavy duty 6 or 12-volt ball bearing motors, sturdy housing and base.

...On your new equipment specify this big FEDERAL COASTER SIREN

When you order your new equipment, *specify* the siren that will give you maximum protection, absolute dependability. Federal Sirens are designed scientifically to assure a powerful, penetrating tone, and are built for instant starting, dependable, long-life operation, with a minimum of maintenance. Model C-5 Coaster Siren shown above is a big, powerful siren, designed especially for emergency vehicles requiring a deep, powerful warning to assure safety to other vehicles and pedestrians. Get details and prices on this and other Federal Sirens—write for bulletins today.

How Dependability and Power are built into FEDERAL Sirens

Cast aluminum or die-cast zinc alloy rotors, accurately machined and individually balanced. Knife-edge ports assure even cut-off and true pitch for penetrating roaring tone. Thin, smooth rotor blades handle large air volume with minimum current consumption.



Get this Bulletin FREE

Details, illustrations, and prices on this and other Federal vehicle and fire alarm sirens. *Write today.*

FEDERAL ELECTRIC COMPANY, INC.

SIREN HEADQUARTERS

8732 SOUTH STATE STREET, CHICAGO 19, ILLINOIS

6 of 70 MASTERLIGHTS

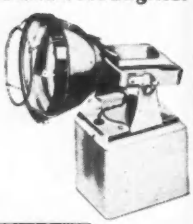
MASTER★LIGHTS FOR EVERY NEED

The best in colored oscillating lights for your motor equipment.

Type 06 ←
Clears Both Sides of Street

Featherweight, Mile Range, Rechargeable Hand Searchlights and Floodlights.

Type WS →
Uses Small Rechargeable Battery Mile Range

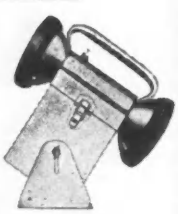


Type Dul ←
Emergency Floodlight For Theatres, Road Houses, etc.

Types F5 and Super-6 →
Dry and Rechargeable Units. ¾ Mile Range

Type T ←
Roof mounted Officers Searchlight 360°

Type T&T →
Two-Way. Hand and Red Warning Light



CARPENTER MFG. CO.
168 MASTER ★ LIGHT ★ BLDG.
BOSTON 45, MASS.

Using the Hand Suction

Continued from page 13

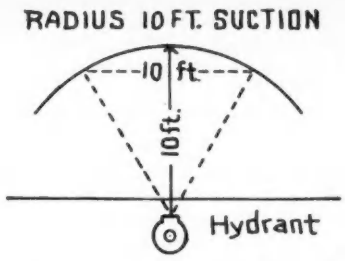
tion from a hydrant located at the left hand side of the street, as judged from the direction the apparatus approaches. It is therefore important that when pumper suction drills are held, that they include hook-ups from both sides of the pumper. Of course where pumpers have front-mount suction connection, or rear suction connection, these should be included in drill practices.

With this article are shown two common methods of connecting the hard suction. Possibly other methods will do just as well with sufficient drill and practice. The objective is to make the connection as quickly as possible without injury to the men handling the heavy suction.

One remark commonly heard when pumper hook-ups are discussed is the opinion that "the connection should be made to the hydrant first, because it is possible to move the pumper, but the position of the hydrant cannot be changed." This opinion may have some merit where a crew lacks practice in pumper hook-ups, but if the operator can place the pumper outlet within five feet either side of the hydrant and a proper distance from the curb, it should be possible to set the brakes and make the connection without subsequently moving the machine.

The greatest difficulty in connecting the pumper comes where parked automobiles block the hydrant. In such cases it may be necessary to use a soft suction, but usually it is possible to use the hard suction without much difficulty, if automobiles are parked parallel in a single line leaving even a few feet clearance on either side of the hydrant.

Perhaps a greater difficulty is a situation where the hydrant has been set with the pumper connection facing away from the street. In such arrangements it may be advisable to use a reducer and connect the hard suction to a 2½-inch outlet if one is available. The writer recalls one U. S. veteran's hospital where every hydrant was set with the pumper outlet facing away from the street in such a way that it would be necessary for pumpers to run long lines from public hydrants outside the grounds, or use the 2½-inch hydrant outlets.



A 10-foot suction hose will permit a well placed pumper to make connection for a distance of five or more feet on either side of the hydrant. An ordinary 4½-inch hard suction is flexible enough so that two men should have little difficulty in making the connection. The larger 5- and 6-inch diameter hard suctions are much more difficult to handle.

In many other situations throughout the country the hydrants are set so far back from the street that time must be lost in connecting two lengths of suction to reach from pumper to hydrant. In some communities the fire chief must give approval to the placing of fire hydrants by the water department to make more certain that the location will be one that will permit quick and convenient use when fire occurs.

Suggested Hydrant Marking

THE ordinary marking of fire hydrant "no parking" zones along the curb line with chrome yellow or red traffic paint does little to impress the public with the importance of not blocking the street access to the hydrant with parked automobiles. The public, knowing little of fire fighting procedures, reasons that there will not be a fire anyway while the car is left "just for a few minutes." And if there is, the firemen can connect a hose line to any one of the hydrant outlets.

Marking of the street access to each hydrant pumper outlet with a stencil reading "No parking — fire pumper connection" should help discourage parking. If this marking were ten feet long (the length of a pumper suction) with a bright blob of color at the end, it would serve as a target to help the pump operator spot the machine correctly in relation to the hydrant on the first try.

Many members of the public do not appreciate that the primary reason for "no parking" rules for fire hydrants is to permit the fire department pumper to make quick connections. The ordinary marking of hydrant zones with traffic paint does nothing to clear up this lack of understanding. A marking with a stencil indicating the space required for pumper suction should greatly help to enforce "no parking" at hydrants.

FIRE APPLIANCE COMPANY

1849 SOUTH FIRST STREET ☆ P. O. BOX 849 ☆ SAN JOSE, CALIFORNIA

December, 1945

TO ALL PERSONS INTERESTED

IN FIRE PROTECTION:

Some of the most potent fire fighting equipment and materials ever developed are soon to be made available for your use. Though not all the equipment may be entirely new to you, its effectiveness has been so increased during the war that you may find it little short of revolutionary.

The experience Fire Appliance Company had gained in the manufacture of spray nozzles was put to work by the Army and Navy. For the Army and Army Air Forces we built Aqua-Gas nozzles. For the Navy's Bureau of Ships program we made all-purpose nozzles, many thousands of which have been used throughout the world.

New Aqua-Gas nozzle outperforms wartime model

Two years of intensive research, in cooperation with the Bureau of Aeronautics of the U.S. Navy, resulted in the Aqua-Foam crash truck. Over one hundred of these trucks are now being built for use in Navy Air Stations here at home and overseas.

Extinguishes gasoline fires in minutes!

These truly all-purpose fire trucks will be available for civilian fire department use in fighting gasoline and other inflammable liquid fires - as well as structural fires. The most advanced equipment and methods used in winning our war against fire will be fighting to save the property in your care.

Aqua-Foam contains the essential fire-resistant ingredients for smothering most burning liquids. It has been furnished in large quantities to the Navy Bureau of Aeronautics, as well as to the Army, for fighting crash fires. The foam applicators - Aqua-Foam nozzles - have been installed to improve the performance of Navy high pressure fog trucks, as well as crash fire trucks used by the Bureau of Aeronautics.

It's Aqua-Foam

Foam nozzles fit Aqua-Gas nozzles. One nozzle kit fits all types of fires.

Through Fire Appliance Company, all the tools you will need to control ANY type of fire in your community will soon be yours, in compact units which will complement - not render obsolete - your existing investment in fire fighting equipment.

Saves property - Costs less!

Yours for better fire control,

Thomas F. Trust

Aqua-Gas NOZZLES · APPLICATORS · AND SYSTEMS **Aqua-Foam**

From 8 to 80, Hudson, Mich., Citizens Enlist to Drive out Fire

Fire Warden Delbert E. Sharp, N. F. P. A. member, tells how a small community can sponsor an all-out Fire Prevention Week program.

IN Hudson, Mich., City Fire Warden Delbert E. Sharp scheduled a Fire Prevention Week program in which the entire city took part. It opened on Wednesday, October 10, with an afternoon program at the high school auditorium.

The sixth grade pupils presented a skit in which each member of the class represented a common cause of fire. A lesson in "what to do when fire breaks out in your home" was dramatized by students from the Sacred Heart School in a play entitled "A Fire at the Bradford's." These young fire protectionists also emphasized the necessity of relaying accurate and exact information to the fire department or ambulance as to the location of the fire.

N.F.P.A. President Vernor Present

Pres. Richard E. Vernor of the N.F.P.A. and manager of the Fire Prevention Department of the Western Actuarial Bureau of Chicago, spoke on fire prevention and the first steps to take in case of fire. Gerald Walker, a member of the Michigan State Police from Jackson gave a talk on "Laws Regarding Public Assemblies," covering decorations at public gatherings. This program was open to the public who were urged to attend.

This announcement was placed in Hudson newspapers, describing the Fire Prevention Week campaign, that every citizen in the community might be reached.

FIRE PREVENTION

HUDSON CITY WILL OBSERVE FIRE PREVENTION WEEK WITH A BIG PARADE
PROGRAM AT WASHINGTON SCHOOL AT 2:15 P.M.

Two playlets will be presented, one by Sacred Heart students, the other by Sixth Grade students of the Hudson Public Schools.

The Parade forms promptly at 7:30, at Corner Maple Grove and East Main Sts. Following the Parade, Richard E. Vernor will deliver an address at the Main Four Corners.

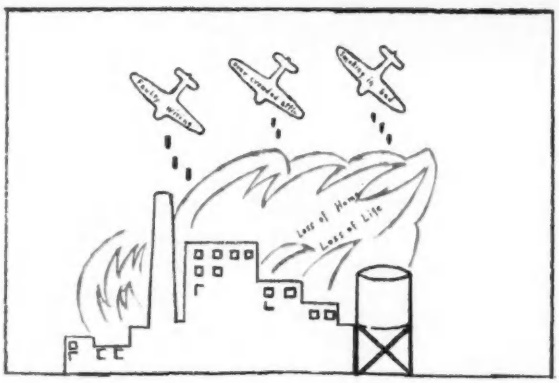
The local Fire Department will give demonstrations. The Hardie Mfg. Co. will demonstrate how to extinguish a gasoline fire.

Hudson will observe Merchants' Fire Prevention Week, October 7 to 13, with attractive and interesting displays of their merchandise and fire hazard, which has been placed there by the Fire Warden and his committee. Prizes of $5, $3 and $2 will be awarded.

The Display Posters will be in the West Main St. Bldg., formerly occupied by the Youth Center. Awards will be given the winners of the best fire prevention Poster. The Hudson Fire Department will award prizes of $25 and $15 for the best floats.

Fire hazards will be placed in the window display in the following business places.

Nolan Kelley	Tom Green's Store
Blank's Jewelry Store	Camp's Market
Knight's Jewelry Store	Eddie's Swing Bowl
City Dry Cleaners	Brennan's Store
Wenig's Farm Supply	Marsh's 5c & 10c Store
Standard Oil Station	Otweller's Drug Store
Kroger's Grocery Store	Pete's Confectionery
Meek's Book Store	Gregory's Shoe Store
Coscarelli's	Thompson's Bank
Gamble's Store	Circle-Bar Sandwich Shop
Red Goose Shoe Store	Guss & Sons
Dan C. & Rex Brown	A. & P. Food Store
Nu-Way Cleaners	Phelp's Drug Store
Murdock'c Barber Shop	Eady's Bakery
Atkinson's Barber Shop	Meyer's Dept. Store
Hudson State Bank	C. F. Smith's Food Store
Bank Cafe	Sweezey's Mobil Gas Sta.
Western Union	Yager & Curtis Gulf Sta.
Sturgis' Barber Shop	Consumer's Power Co.
DeMerritt's Hardware	



The interest the school children took in the Fire Prevention Week program is illustrated above with one of the 388 posters they designed. An exhibit of these was arranged and prizes awarded of silver fire prevention placques. These awards will be kept in the winning class room until another class overtakes this year's winners.

Evening Parade

The same evening the Michigan State Police escorted a parade through the city. Nearly every club and social group in Hudson sponsored a float. Among the entries were the Boy Scouts, Hudson fire trucks, the Addison Saddle Club, merchants with floats representing their stock in trade, manufacturing companies displaying their products, members of the Junior Chamber of Commerce, and the Pet Milk trucks.

The Lincoln School Mothers' Club float received first prize. It represented a kitchen and showed the many hazards that lurk in homes, dangers that are caused by carelessness. Second prize went to the Silvernail School float which represented a forest with the camp fire being extinguished properly to illustrate the danger of re-ignition if not completely drowned or covered.

Extinguishing Operations Demonstrated

The Hudson Fire Department demonstrated various extinguishing operations with soda-acid, carbon tetrachloride, and killing a gasoline fire with foam. A 10-gallon gasoline pit fire was put out with the Hardie Manufacturing Company's high pressure fog unit.

During the entire course of Fire Prevention Week, every store in Hudson featured window displays of fire hazards, some obvious and others not so plainly in view. Contest blanks were available in each store. Every man, woman and child in Hudson went on a hazard hunt to note the largest total of potential fires in the store windows.

School students submitted a variety of posters on the subject of the week, and a total of 388 posters was exhibited in the Youth Center. One of the many outstanding examples of their work is reproduced on this page.

To the five winners of the poster contest, silver fire prevention placques were presented. They will be on exhibition in the winning grade room until the following year's contest determines new winners. Judging the contest was a member of the Michigan State Fire Marshals' Division.

Another event in Fire Warden Sharp's all-out Fire Prevention Week program was a display of photographs showing how Hudson is preventing serious fire losses by condemning hazardous buildings. Some of these structures have been razed, others repaired and rebuilt for future usefulness. All this clean-up work has been accomplished since Fire Warden Sharp's ten-year period in office.

Continued on page 24

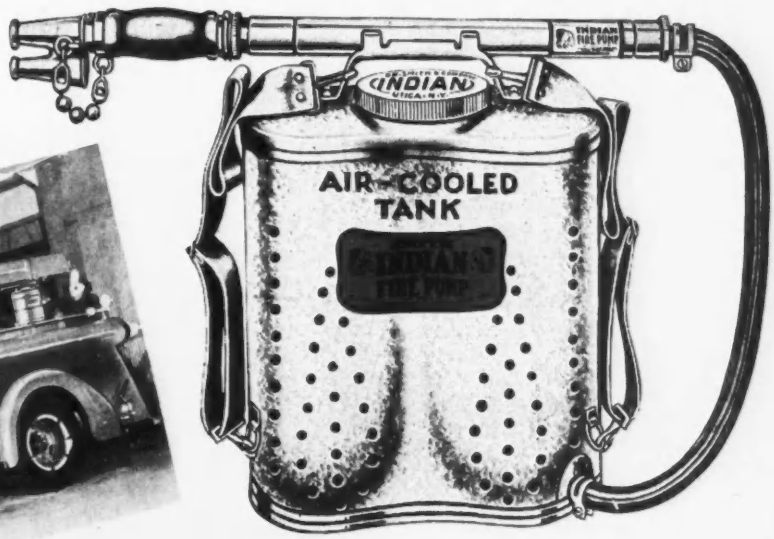
"INDIAN *Fire Pumps* ARE OUR BEST BET"—*says Fire Chief* LEO R. BARRY

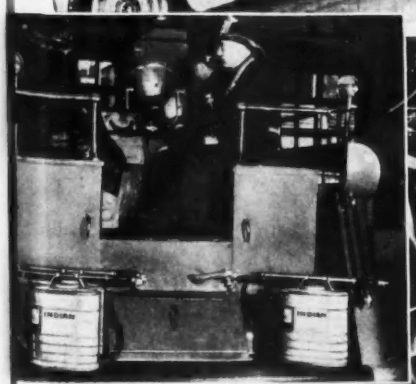
Here Is Chief Barry's Statement:

"INDIAN FIRE PUMPS have been in use in the Utica Fire Department for a number of years. These extinguishers have about supplanted soda and acid extinguishers for incipient fires because of their convenience and freedom from muss.

"They adapt themselves well to interior fires because they cause no damage from outside dirt and grease coming in contact with costly rugs and furnishings as hose lines often do.

"INDIAN FIRE PUMPS are carried on all apparatus and in addition to their utility for all types of fires are our best bet for grass and outside rubbish fires and every spring prove their indispensability over and over again."





Use INDIANS to "cover exposures" and protect adjacent property exposed to flying embers and sparks. They can easily be used on ladders and roofs. INDIANS can be operated from running board of slowly moving apparatus to control grass fires.

ADJUSTABLE NOZZLE

Throws fog-mist, straight pressure stream or coarse spray. Just what you need for all types of fire fighting.

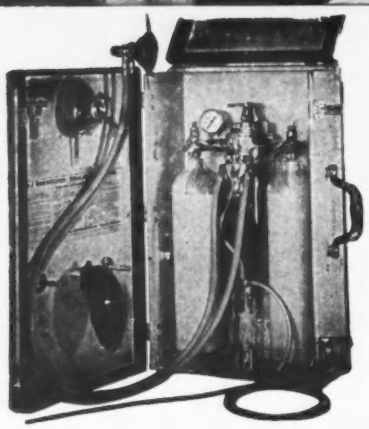
D. B. SMITH & CO. • 411 Main St. • UTICA 2, N. Y.

Pacific Coast Branches
Honolulu Equipment & Rubber Co. — 418 Brannan St., San Francisco, Cal.
Roy G. Davis Co., 617 E. Third St., Los Angeles 13, Cal.
Calvert-Connelly Co., 520 S.W. First St., Portland 4, Oregon
Tice Cornett Co., Klamath Falls, Oregon
Mill & Mine Supply, 2700 4th Ave., So., Seattle, Wash.

WHEREVER YOU FIND LIFESAVING AT ITS BEST

You'll find

The E & J RESUSCITATOR INHALATOR and ASPIRATOR



The E & J Resuscitator enables you to treat EVERY case of Asphyxia safely and effectively. Severe burns, broken back, fractured ribs, internal injuries, pregnancy, etc., are no hindrance to successful and safe artificial respiration when you employ this modern automatic breathing machine. It is now being used in a large majority of the leading industrial plants, hospitals and by countless fire departments.

E & J MANUFACTURING CO.

GLENDALE, CALIFORNIA

Pioneers and Specialists in Mechanical Artificial Respiration

Drexel Bldg. Philadelphia | 17 E. 42nd St. New York | 2144 N. Springfield Ave. Chicago | 581 Boylston St. Boston

530 Fernando St Pittsburgh | 3032 W. 25th Ave. Denver | 3900 Grandy Ave. Detroit | 5005 Euclid Ave. Cleveland

Hudson, Mich. . . .

Continued from page 22

Such eyesores as these were the targets of Fire Warden Delbert E. Sharp's clean-up campaign, not just during Fire Prevention Week but as a year-round job. Such structures as were beyond repair were torn down, and others rebuilt.

Another fire hazard that bit the dust during Fire Warden Sharp's campaign, trash and dry grass around oil barrels.

A delayed alarm caused this Chicago building, headquarters for four lumber companies, to be completely destroyed by fire on April 11, 1945. A strong wind and concealed spaces in the building construction made the automatic sprinkler system ineffective.

20 minutes TOO LATE!

Twenty minutes after this fire was discovered someone telephoned the fire department. The fire fighters did their noble best but the alarm came too late for human efforts to save the building and its contents...the loss was more than $600,000.

The best insurance against delayed alarms, an outstanding cause of large-loss fires, is the automatic detection and reporting of fires in their incipiency. A.D.T. provides this protection through Aero Automatic Fire Alarm Service in unsprinklered properties and through Sprinkler Supervisory and Waterflow Alarm Service in sprinklered properties.

May we tell you how automatic protection can be employed to effect substantial economies while providing increased protection? Write for complete information and descriptive booklets.

A. D. T. AUTOMATIC FIRE DETECTING AND REPORTING SERVICE

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH CO.** *155 Sixth Ave., New York 13, N. Y.*

CENTRAL STATIONS IN ALL PRINCIPAL CITIES OF THE UNITED STATES

A·D·T

Electric Protection Services

AGAINST FIRE · BURGLARY · HOLDUP

A NATION-WIDE ORGANIZATION

Midwestern Rubber and Canvas FIREMEN'S CLOTHING

This Midwestern Combination Suit, made of Vanitex, the modern waterproof fabric, is sold separately or together. The "Mackinaw Coat" is a highly serviceable garment with flexible elastic inner sleeves; adjustable collar strap, detachable wool lining, Midwestern safety snaps, two outside pockets, 6" storm flap and many other good features.

Hundreds in use All over America

Midwestern Bunker Pants with detachable wool lining, safety snap on adjustable belt, wide protecting flap, are sturdily constructed with reinforced crotch for pole sliding. Write today.

Regular Firemen's Boots available ¾ length. See your local Midwestern distributor for price and literature, or write the factory.

Manufactured by

MIDWESTERN MANUFACTURING CO.

MACKINAW, ILLINOIS

The Modern All-Purpose Fire-Fighting Tool!

The HUXBAR

This effective new tool was invented by a practical fire captain. His thirty years experience in fighting fires and catastrophies convinced him that the basic safety tools were clumsy and inadequate. From this knowledge he developed the **HUXBAR**, one tool that would efficiently perform the work of five. Modern in design and practical in use the **HUXBAR** is useful in any and all emergencies.

Constructed of the finest nickel chromium alloy steel, it has the tensile strength of 175,000 lbs. per square inch, strength without brittleness . . . and carries an unconditional guarantee. The **HUXBAR** not only fights and controls fires and emergencies but many users have found it adaptable to their special requirements. Act now to equip your plant, safety squad, fire or police department with the **HUXBAR**. Price . . . **$15.00.**

The HUX-A-MAT

LIGHT WEIGHT
FOLDS COMPACTLY TO FIT
28" x 8" CARRYING CASE

The compactness and light weight of the **HUX-A-MAT** "Fold-N-Bag" stretcher makes it easy to carry and a simple matter to reach the injured wherever they are. The injured are protected from the elements by waterproof canvas, a rubber sheet, a wool blanket, and a linen sheet. Write today for further details on this dependable new-type stretcher. Price . . . **$27.50** without equipment . . . **$33.50** complete.

HUXEL INDUSTRIES • *Safety & Fire Appliances*

DEPT. VF-2, 1000-1002 KEITH BLDG., CINCINNATI, OHIO

Mr. C. William Ecton (left) of Hagerstown, Md., president of the Maryland State Firemen's Association, presents the Coburn Cup to Captain Arnold.

Maryland Firemen Honor Glen Echo Fire Captain for Rescue Work

CAPT. GEORGE C. ARNOLD, of the Glen Echo Volunteer Fire Department, received the Maryland State Firemen's Association's highest award, the President George W. Coburn Cup, for rescuing two small boys marooned on a rock in the Potomac River near Little Falls, Md.

Captain Arnold, who rescued the boys by means of a life line, was presented the award at a meeting of the Montgomery County Association of Volunteer Firemen held in Gaithersburg, Md., November 15.

In accepting the award, Captain Arnold said that the other members of the rescue crew were equally entitled to the Cup and to be praised for their courageous assistance.

The Glen Echo Volunteer Fire Department is a member of the N.F.P.A. Volunteer Firemen's Section.

★ ★ ★

Insurance Co.'s Subscribe to Fund for Providence, R. I., Fire School

SUBSCRIPTION to a $1,000 fund by six Providence fire insurance firms to provide the city fire school with additional textbooks and training aids was announced recently by the vice-president of the Providence Washington Insurance Co.

The money will be administered by a committee including Hovey T. Freeman, secretary-treasurer of the N.F.P.A., and Providence's Fire Chief Thomas H. Cotter. The members will consult with and advise the fire department on its training program and will expend the money as it sees fit to aid the fire school, established last spring.

NEW CATALOG

FIRE EQUIPMENT

100 PAGES

WRITE FOR YOUR COPY TODAY!

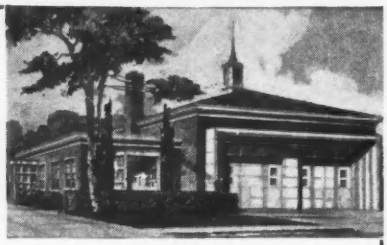
No 136

ARMY ★ ★ E NAVY

W. S. Darley & Co.

CHICAGO 12, U. S. A.

Better
FIRE STATIONS
with CIRCUL-AIR
THE AIR-CONDITIONING



FIRE HOSE DRYER

It's "post-war" **now,** and we're sure you want your new stations to be of **Modern Design** . . . simpler, streamlined houses in keeping with the times . . . with better lighting, heating, adequate alarm systems, finer apparatus and faster **Hose Drying.** In eliminating the costly, ugly hose tower of the "gay 90's" **CIRCUL-AIR** improves building appearance and lowers construction cost. Efficient and practical for large central stations, they are ideal for "bungalow" type houses, for villages, townships and fire districts where time-saving, space and costs are decisive factors.

for* OLD STATIONS *too!

Without adequate drying equipment, or with towers in need of repairs they are most economical and efficient. Cheaper than a tower, more compact than a drying rack, faster and easier to use than either.

ASK A CHIEF WHO HAS ONE
Or Write for Descriptive Booklet

The CIRCUL-AIR Corporation
6339 East Palmer Avenue
DETROIT 11, ◆ MICHIGAN

Cost of Fire Protection in Largest Cities

ACCORDING to a recently issued report on City Finances published by the U. S. Bureau of the Census, 397 U. S. cities of more than 25,000 population spent a total of $187,464,000 on fire department protection in 1943. Of this sum, $60,466,000 was spent by the five cities having more than one million population each, as follows: New York City, $34,436,000; Chicago, $8,970,000; Philadelphia, $6,217,000; Los Angeles, $5,736,000; and Detroit, $5,107,000. A total of sixty-four cities spent over $500,000 each on fire protection in 1943 and of these, twenty-eight spent more than a million dollars.

★ ★ ★

A naughty young boy once cried, "Fire!"
It turned out that he was a liar.
His false fire alarm
Might have done a great harm,
Had the fire truck blown out a tire.

★ ★ ★

When Civil Engineers Say 'Water'

Continued from page 18

The lack of destructive turbulence from the falling of these tremendous volumes of water is due to the special design of the nozzle troughs which spread out the water for great distances both horizontally and vertically. Thus the impact of 300 tons of water per second from the jets illustrated is spread over a wide area

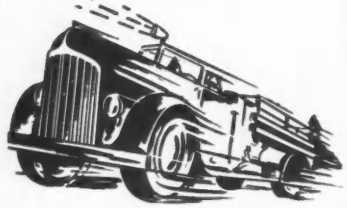
★ ★ ★

Electricity Has Its Own Safety Rules

IT'S smart to play safe!" is the keynote of a new and instructive leaflet outlining the "practical ways to insure the safe use of electricity on the farm." This Department of Agriculture publication provides pictorial do's and don't's illustrating the correct way to electrify a farm property. Nine rules are given to follow for safe wiring. For an example, No. 3 — Before turning on the farmstead electric service, ask your Co-op to have the wiring and equipment inspected thoroughly! It's worth a checkup — ask the farmer who lost his herd. Seven important warnings against dangerous practices are also summarized.

Copies of the leaflet may be obtained from the Rural Electrification Administration, U. S. Department of Agriculture, St. Louis 2, Mo.

SIRENO



THE SIREN THAT CLEARS THE WAY

PRECISION MADE—THE UTMOST IN DEPENDABILITY AND LONG LIFE

◆ SEND FOR CATALOG VF ◆

Avoid DANGER to Property
STOP Fire!

Save Valuable Plants & Materials

Fyr-Fyter equipment has proven its value in preventing small fires from becoming disastrous through the loss of life and property. Recent catastrophic fires with terrific loss of life emphasize the urgent need of fire protection. A complete line of Underwriters' Laboratories Labeled Fire Extinguishers.

HELP SAVE LIVES AND PROPERTY

Get Fyr-Fyters for safety's sake. We advise and serve manufacturing plants, public institutions, etc., immediately. Write us today regarding Fyr-Fyter equipment for your own protection.

THE FYR-FYTER CO.
DAYTON 1, DEPT. 20-13 OHIO

BUY BONDS **Fyr-Fyter**

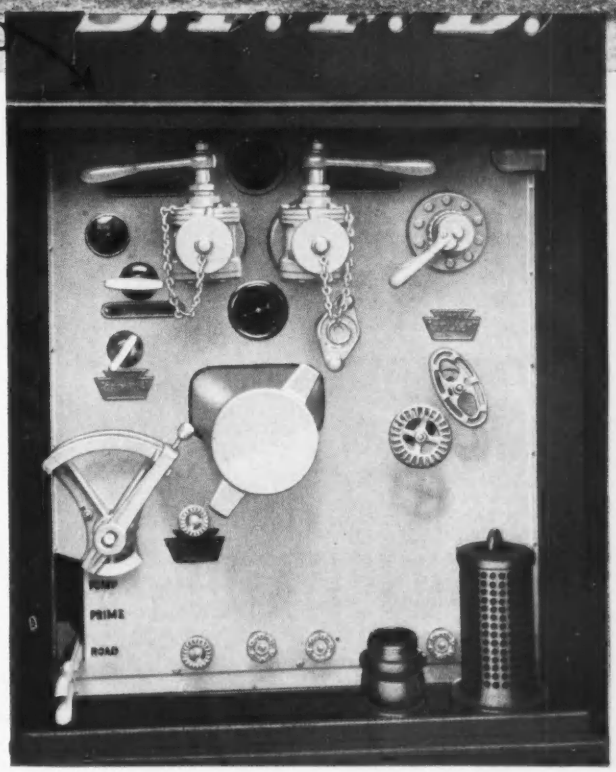
FWD-Engineered

TO GIVE YOU MORE AND BETTER FIRE-FIGHTING APPARATUS

Speed with safety — ample power for toughest going — full four-wheel-drive power and traction for all-weather service — designed by fire truck engineers who know fire-fighting needs, your FWD fire truck provides the finest of fire protection service. Study the features of this FWD-engineered fire truck. You will recognize why these balanced fire-fighting units provide so many years of unfailing service. More than 30 years of specialized fire truck engineering experience is the background of every FWD fire truck — more than 30 years of close cooperation with fire departments everywhere. FWD engineers will be glad to consult with fire chiefs and commissioners and make recommendations that will amply fill community needs for modern fire apparatus at its best. Write for literature.

THE FOUR WHEEL DRIVE AUTO CO.
Clintonville, Wisconsin, U. S. A.

WRITE FOR BULLETIN

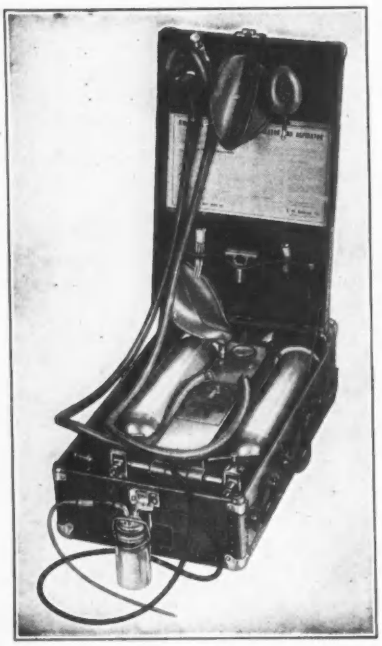


ALL CONTROLS *Grouped Where You Need Them*

The close-up of the control panel shows all fire-fighting equipment controls conveniently located for greatest accessibility. When not in use, panel is covered, protecting instruments against dust, dirt, sleet, ice and snow. Your FWD fire apparatus is always ready for every emergency.

FOUR-WHEEL-DRIVE *Fire Apparatus*
GETS TO FIRES FASTER AND SAFER!

WHEN LIFE IS AT STAKE
DON'T
TAKE CHANCES!



PLAY SAFE
with an
EMERSON
RESUSCITATOR

When you are faced with smoke suffocation, gas poisoning, electric shock, drowning or other asphyxia, you can't afford to have anything but the best equipment available. That is why you need an EMERSON.

•

Write for literature or an actual demonstration.

•

J. H. EMERSON CO.
24 Cottage Park Ave.,
Cambridge, Mass.
Representatives in Principal Cities

Fire Company Membership

MEMBERSHIP PLAN

THE Volunteer Fire Company Section is open to all fire departments and fire companies in communities of less than 25,000 population, to all industrial fire brigades, and to bona fide volunteer fire organizations in communities of over 25,000 population. Members of the Volunteer Fire Company Section are entitled to ten copies of FIREMEN magazine as part of the company membership. In addition, each company receives one set of all the regular material mailed to N.F.P.A. members, such as the monthly News Letter, Quarterly magazine, technical standards, and popular bulletins and posters. All other associate members of the National Fire Protection Association receive one copy of FIREMEN magazine each month, if requested, as a part of their individual membership.

Membership in the Volunteer Fire Company Section costs a minimum of $10 a year and brings FIREMEN magazine to ten firemen. Additional firemen may be enrolled under the membership of a member fire company at the cost of $1 per additional man. Thus the total cost of a company membership enrolling fifteen firemen is $15.

NEW COMPANIES

THE National Fire Protection Association's Volunteer Firemen's Section ended the year with a total of 1,235 members.

Washington Volunteer Fire Dept., Broderick, Calif.

Hudsonville Fire Dept., Hudsonville, Mich.

Riverview District Fire Dept., St. Louis 15, Mo.

Chili Fire Dept., Chili, N. Y.

Dewitt Fire Dept., Dewitt, N. Y.

Farmingdale Fire Dept., Farmingdale, N. Y.

Lynbrook Hose Co., No. 1, Inc., Lynbrook, N. Y.

South Glens Falls Fire Company, Inc., South Glens Falls, N. Y.

St. Johnswood Volunteer Fire Dept., Portland, Ore.

Riverside Fire Co., No. 11, Reading, Pa.

Errata

Illinois. An incorrect report was made in the December VOLUNTEER FIREMEN concerning the date of the 56th Annual Convention of the Illinois Firemen's Association, Inc. The convention will take place in Quincy, Ill., October 15–17, 1946.

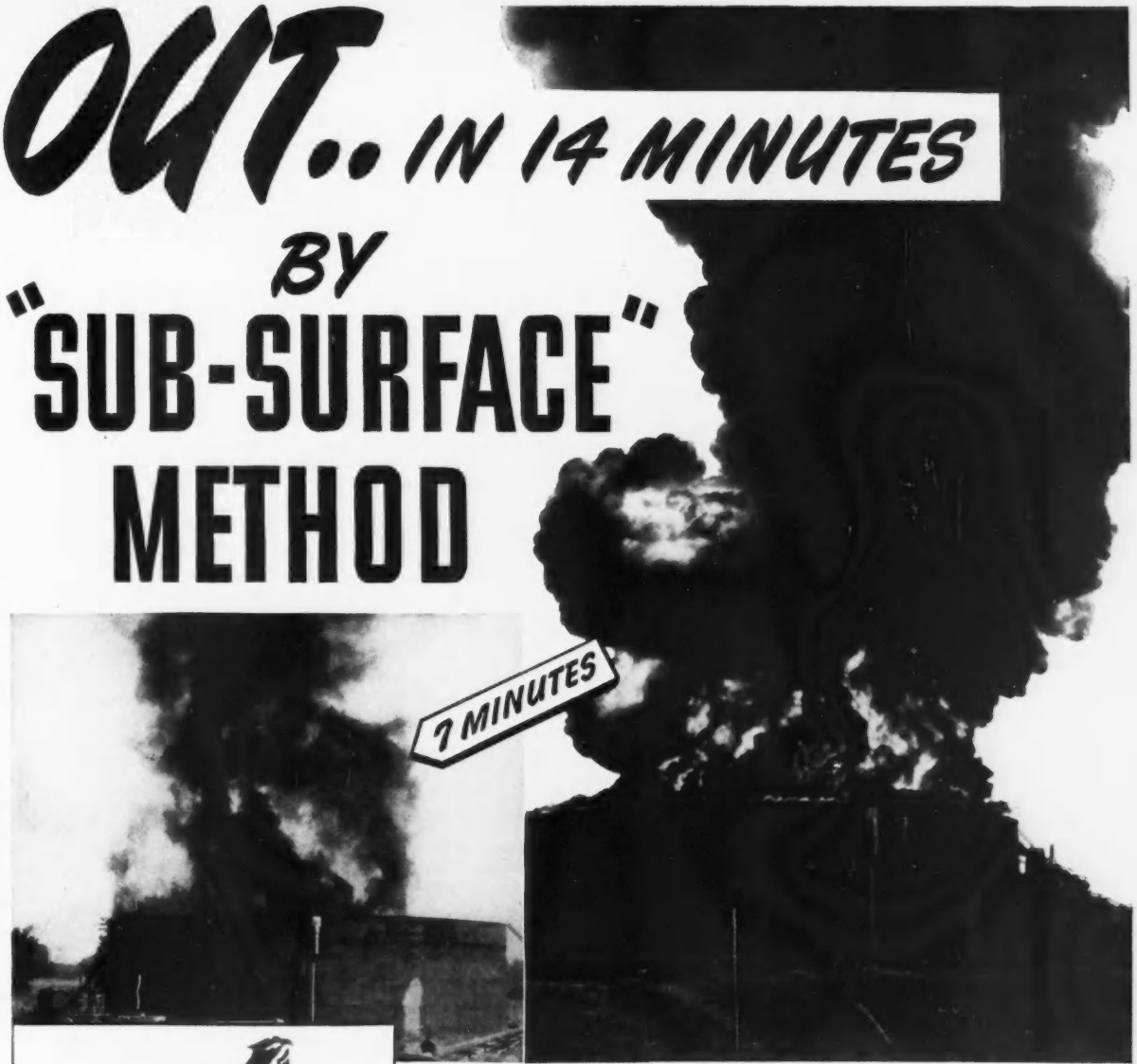
Keep Winter Road Accidents at a Minimum

Continued from page 16

It is also important to anticipate the movements of other drivers. Do not take it for granted that you can beat the other fellow to a corner. And always remember that driving to an alarm of fire does not give men a right to "drive so as to endanger."

You may have already ordered your new car, but there a few months to wait before large scale deliveries will begin. Until then, take it easy with your present automobile.

OUT.. IN 14 MINUTES BY "SUB-SURFACE" METHOD



U. S. Navy test on 93′ diameter blazing tank shows . . . "SUB-SURFACE" Method of foam applications kills gasoline fires—when properly engineered foam liquid is used.

MEARLFOAM-5 was successfully employed at this U. S. Navy test at Findlay, Ohio in July 1945. The multi-protein, blended foam-producing liquid is the same dependable mechanical (air) foam liquid supplied to the Navy for shipboard and shore base fire-fighting during wartime—and now supplied to the Navy for peacetime protection.

Ask for condensed data sheet describing the properties of this war-born fire-fighter that yields the live, lasting, fire-resistant (air) foam. *Technical assistance available.*

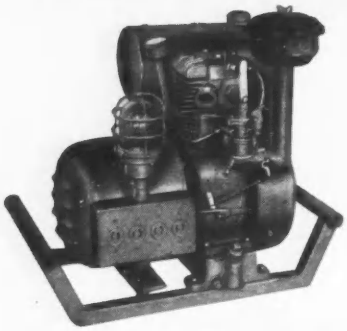
MEARLFOAM 5

Completely safe and non-corrosive—may be used with standard Mechanical Foam-Forming Equipment

FOAM ON FIRE OUT... Stays OUT!

★ ★ MEARLFOAM-5, in pre-mixed solutions with hard or sea water, will not form any objectionable precipitate on long standing.

THE MEARL CORPORATION
153 Waverly Place, New York 14, N.Y.



"U.S." ELECTRIC PLANTS

These rugged 1,500 watt units were designed to fire department specifications — built to meet every need. Dependable, quick-starting, 4-cycle engine. Positive lubrication. Automatic voltage regulation. No fussing to mix gasoline and oil. Compact — an easy load for two men.

Larger and smaller sizes are also available. Write for information.

UNITED STATES MOTORS CORP.
424 NEBRASKA ST. OSHKOSH, WIS.

INDEX TO ADVERTISERS

Akron Brass Mfg. Company, Inc.	2
American-Marsh Pumps, Inc.	4
American District Telegraph Co.	25
John Bean Mfg. Company	33
Buffalo Fire Appliance Corp.	35
Carpenter Mfg. Company	20
Circul-air Corporation	28
W. S. Darley & Company	27
E & J Mfg. Company	24
J. H. Emerson Company	30
Federal Electric Company, Inc.	19
Fire Appliance Company	21
Four Wheel Drive Auto Company	29
The Fyr-Fyter Company	28
The Gamewell Company	34
Hale Fire Pump Company	3
The Hardie Mfg. Company	17
Huxel Industries	26
Walter Kidde & Company, Inc.	36
Mearl Corporation	31
Midwestern Mfg. Company	26
Mine Safety Appliances Company	15
The Sireno Company, Inc.	28
D. B. Smith & Company	23
United States Motors Corporation	32

When you write to advertisers, please mention FIREMEN

MANUFACTURERS' ANNOUNCEMENTS

Dugas Introduces New Mine Fire-Fighting Car

THE DUGAS DIVISION OF ANSUL CHEMICAL CO., Marinette, Wis., has developed a new mine fire-fighting car for use in coal mines. Constructed at the request of a large Pennsylvania coal mine, the car had its initial successful test when it made a four-mile run into a mine and quickly extinguished a fire which had had a 35 minute headway.

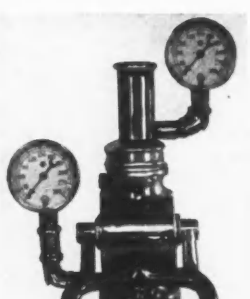
Using the chassis of a standard mine car, the Ansul mine fire-fighting car comes with three 300-pound tanks of Dugas Dry Chemical. Two of the tanks, which are connected in parallel, operate through a 100-foot hose, while the single tank has 50 feet of hose. The dry chemical tanks are powered by three nitrogen cylinders placed horizontally in a rack behind the chemical tanks.

In addition to the dry chemical tanks the car also carried 100 gallons of water with a reel holding 100 feet of hose having a nozzle that will throw a straight stream or spray. A single nitrogen cylinder supplies pressure for expelling the water. Purpose of the water is to extinguish embers which may remain after the dry chemical has knocked down the flames.

●

"Dyna-Stat" Simplifies Hydrant Flow Testing

VULCO PRODUCTS COMPANY of New York City has available an interesting booklet descriptive of its "Dyna-Stat Test Pipe," a device for determining the



flow of water obtainable at any hydrant. With this device which is illustrated above it is a simple operation to determine the static and dynamic (or flowing) pressures at a hydrant or valve. The dynamic pressure and gallons delivered per minute at any given point may be obtained by calculation without laying any hose. A copy of the descriptive booklet will be sent on request to the manufacturer at 409 West 36th Street, New York 18, N. Y.

●

American-Marsh Issues New Bulletin

AMERICAN-MARSH PUMPS, INC., of Battle Creek, Michigan has recently published a new illustrated bulletin describing its auxiliary booster pumps for fire department service. These portable centrifugal pumps operated by a small gasoline engine are designed for supplying booster tanks, pumping out basements and similar purposes. According to the manufacturers statement they will deliver as much as 300 gallons per minute. Get full details by writing to the manufacturer for Bulletin No. 8120.

●

Gamewell Awarded Army-Navy "E"

Reception of the Army-Navy Production Award for meritorious production of war equipment was recently announced by Mr. B. J. Baker, Chairman of the Boards of THE GAMEWELL COMPANY, Gamewell's contributions to the war effort included the production of more than 500 fire alarm and other protective signalling systems for the military properties of the United Nations including plants in which the atomic bomb was developed and produced; equipment for radar systems; gyroscope compass control panels; special gunfire control computers; precision potentiometers; and teletype regenerative repeaters. Engaged throughout the war period in the production of its standard lines of fire signalling and other protective equipment, Gamewell's reconversion problems have been relatively simple and involve primarily the procurement of essential materials in adequate quantities.

FOR SALE

American - La France 750-g.p.m. rotary pumper. 1926 model. In fair mechanical condition. Pneumatic tires. New paint. No hose except suction hose. Drive it away for $500.00. Marlboro Vol. Fire Dept., Inc., Upper Marlboro, Maryland.

WATCH THE SWING TO FMC HIGH-PRESSURE FOG FIRE FIGHTERS

RESTRICTIONS LIFTED!

FMC High-Pressure Fog Fire Fighters may now be purchased for civilian use. Orders should be placed immediately to insure early delivery.

Experience has shown that the FMC Fog Fire Fighter is the ideal equipment for smothering hard-to-get-at town, rural and airport fires.

And here's the reason why!

The equipment travels fast and carries its own water supply. You can go to work, *without delay*, the moment you arrive at the fire.

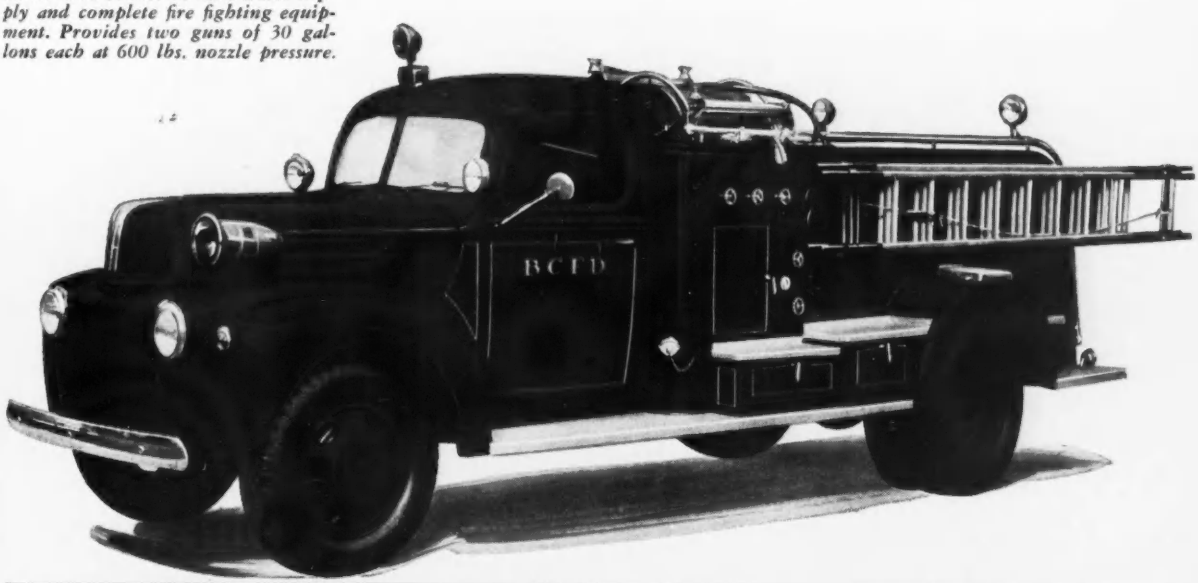
A LITTLE WATER GOES A LONG WAY!

The high pressure provides a combination of high velocity and finely-atomized water—just what you need to *blast, cool* and *smother* flame. Every droplet of water is broken up into thousands of tiny particles that can be blasted into the source of the fire.

BY ALL MEANS—GET THE FACTS!

Investigate this revolutionary new method of fire fighting. Remember—only the FMC High-Pressure Fog Fire Fighter packs the needed punch to produce and maintain 800 lbs. pump pressure — 600 lbs. gun pressure. There's nothing else like it.

WEBSTER, N. H. *Standard FMC Fog Fire Fighter recently delivered to local fire department. This self-contained unit carries its own water supply and complete fire fighting equipment. Provides two guns of 30 gallons each at 600 lbs. nozzle pressure.*



NASHVILLE, TENN. *Standard FMC Fog Fire Fighter recently delivered to the Inglewood-Madison Fire Department.*

NEW BEDFORD, MASS. *Standard FMC Fog Fire Fighter recently delivered to the New Bedford Fire Department.*

DURAND, ILL. *Standard FMC Fog Fire Fighter recently delivered to the Winnebago County Fire Department.*

FMC *Original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY CORPORATION

JOHN BEAN MFG. CO., 726 HAZEL ST., LANSING 4, MICH. • BEAN-CUTLER DIVISION, 426 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

TRADE MARK

GAMEWELL

REG. U.S. PAT. OFF.

The FIRE ALARM FACTOR

● FIRE ALARM in most cities is seriously deficient . . . yet, until the alarm is given the extinguishing agencies are helpless and fire losses continue to increase.

● THE FACTORS . . . *Water Supply* and *Fire Department* . . . are indispensable elements of the municipal fire defenses but so much importance has been attached to them that the relative values of other fire defenses . . . especially *Fire Alarm* . . . have been largely obscured.

● CITY OFFICIALS and others desirous of improving the fire defenses of their communities are invited to write us for information relative to the FIRE ALARM FACTOR. Our new booklet contains some interesting data on this subject and will be supplied on request.

Ask for booklet, "THE FIRE ALARM FACTOR"

THE GAMEWELL COMPANY

NEWTON UPPER FALLS 64, MASSACHUSETTS

In Canada: Northern Electric Company, Limited, Montreal

One of three Buffalo 750 gallon Triple Combinations recently delivered to the District of Columbia. This makes a total of 20 Buffalo units to be placed in the service of the Nation's capitol.

BUFFALO
better-built

MOTOR FIRE APPARATUS

BUFFALO FIRE APPLIANCE
CORPORATION

M & T BUILDING BUFFALO 2 NEW YORK

...military operations thrusting south along the main railway line.

...ment troops driv... within 90 miles of Mukden, vital rail center in the battle for Manchuria.

...library, auditorium, music room, gymnasium ... door swimming pool. One complete wing will be devoted to hospital facilities.

...previously ...knowledged that the separat... were operating in Khamseh, armed with weapons which were distributed by unknown people.

New Trigger Grip Speeds Attack on Plant Fires

Requiring only the pressure of a single finger to operate it, the trigger-control valve now supplied on all 10-, 15- and 20-pound sizes of Kidde Portable Extinguishers speeds the attack on fire by providing faster starting of the carbon dioxide discharge.

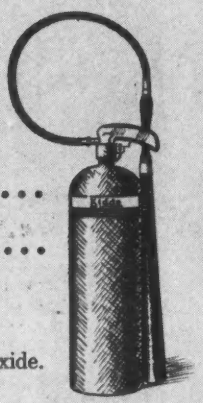
The natural way to operate extinguishers with this new valve is the right way: merely aim at the fire and pull the trigger. The valve can be easily locked in the open position, if desired, simply by a slight forward movement of the trigger. As all the working parts are fully enclosed, there is no danger of the valve's becoming fouled.

Full information on the trigger control valve may be obtained from Walter Kidde & Company, Inc.

Free "Show-'em-How" Book on Fire Fighting

Demonstrate to your employees just what to do in case of fire. Free booklet tells you how. Write for copy. Walter Kidde & Company, Inc., 156 Main Street, Belleville 9, N. J.

Kidde



SAFE . . . SIMPLE . . .
FAST-STARTING . . .
FOOLPROOF

15 pounds of carbon dioxide.
Single-finger control.
Simple lock-open operation.
Working parts enclosed — cannot foul.

Mail and Phone Orders Filled

Kidde

NEVER-NAPPING WATCHMAN

Works on rate of temperature rise. Sounds alarm, and operates extinguishing system automatically. Supplied as part of complete Kidde built-in systems. Other types of detection for automatic operation also available.

Kidde

Bargain in Fire Fighting!

Gets to fires fast—and hits them hard. Combines the wallop of a built-in system with the flexibility of application of a hand portable. Model 50 (illustrated) has 50-pound carbon dioxide capacity. Also in 75-pound and 100-pound sizes.

MAIL AND PHONE ORDERS FILLED

The word "Kidde" and the Kidde seal are K Kidde *trade-marks of Walter Kidde & Company, Inc.*

Walter Kidde & Company, Inc. • **156 Main Street, Belleville 9, New Jersey**

Industrial Output

WASHINGTON ...27.—The General output at factories and mines decreased 4 per cent in October, while in the first half of November ...tput of ...sic industrials ...

British Brides Fall

...stationed in a little town in France for several months, wooed a French girl by telling her about ...

THIS ADVERTISEMENT IS ONE OF A SERIES APPEARING CURRENTLY IN INDUSTRIAL PUBLICATIONS